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CHAPTER ONE
ALIGNMENT OF SPATIAL DEVELOPMENT FRAMEWORKS

1. INTRODUCTION

1.1 Need for the study

The project originates from the Municipal Systems Act (2000) as well as the National Land Use Bill, requiring of each municipality to prepare a single LUMS for the area within its jurisdiction. In terms of this new legislation, municipalities have acquired new administrative boundaries, with additional and broadened roles and responsibilities. The incorporation of a Land Use Management System (LUMS) in the Spatial Development Framework of Integrated Development Plans has set the scene for the more detailed Land Use Management Plans to be prepared for each municipality. In terms of the Municipal systems Act No. 5 of 1998, each municipality is required to prepare an Integrated Development Plan for the whole municipality. The Land Use Management System and Spatial Framework form the key components of the Integrated Development Plan.

It is within this context that the Spatial Framework serves as a basis for the establishment of a LUMS (in accordance with national legislative requirements and provincial policy guidelines). The function of the Spatial Development Framework is therefore to guide overall spatial distribution of current and desirable land uses within a municipality, in order to outline a broad Land Use Management System that would give effect to the vision, goals and objectives of the municipal IDP. The LUMS should thus reflect the objectives and strategies arising out of the IDP and to have the statutory means of defining which land developments are acceptable and which are not.

In view of the fact that each Local Municipality has to have a land use scheme for its area of jurisdiction, the current project offers guidelines for the formulation of the LUMS and Spatial Development Framework for both the District and Local Municipality.

1.2 Methodology

In the formulation of a Land Use Management Framework for the Sisonke District the processes that were undertaken were as follows:

- An assessment of the existing District Spatial Development Framework (SDF) and assessment of the extent of alignment with the Spatial Development Frameworks of the Local Municipalities.
- Guidelines to Local Municipalities on what could be accommodated in their LUMS to ensure that that these give effect to the Spatial Development Framework of both the District and the Local Municipality.
- Guidelines on the processes to be followed in the formulation of local LUMS for each Municipality.

Prior to preparing guidelines for the formulation of the District LUMS, it was necessary to study the spatial profile of the Local Municipality areas, which fall under the jurisdiction of the District (as development informants). The following first phase of the report is based on the examination of the following Local Municipalities Spatial Development Frameworks and their IDP's as well as the District's SDF:

- KZ 5a3 – Matatiele Municipality
- KZ 5a4 – Greater Kokstad Municipality
- KZ 5a2 – Kwa Sani Municipality
- KZ 5a1 - Ingwe Municipality
- KZ 5a5 – Ubuhlebezwe Municipality
- KZDMA43 – Mkhomazi Wilderness Area
- DC 43 – Sisonke District Municipality

NB: It should be noted the frameworks are analysed in terms of key points. If no explanation is provided relating to a key point it is to be interpreted as a gap within the SDF.

1.3 Matatiele Municipality (Spatial Development Framework) KZ 5a3

1.3.1 Nodes

a. **Primary Node**

Matatiele is the largest population centre in the municipality and predominates massively in the Municipality's economy. In this node the CBD is dissected by R59 which is a Primary Movement Corridor.

Being the major economic node and regional service centre to the rural hinterland it also functions as the administrative centre and accommodates the municipal offices, hospital, schools, police station and magistrates court as well as a large variety of commercial and retail outlets and has recently extended housing

infrastructure at Harry Gwala and more housing is proposed to meet housing demand.

b. **Secondary Node**

Cedarville the second largest population centre in the municipality on the R56 primary movement corridor plays an important role as a service centre to farmers in the north of the municipality by providing a small variety of commercial and social services.

c. **Satellite Service Nodes**

"Satellite Services Nodes represent the lowest order of locality, where a range of service and economic activities could be concentrated in a sustainable way and are located in the periphery of the Hub, " (*ibid*). Its locations is usually the most accessible locations within an acceptable walking distance of particular community. These services may be located at a clinic, store, tribal court or taxi rank.

The level of service that are normally found at these nodes are:

- Clinic / Mobile Service
- Post Boxes
- Shops
- Secondary and Primary School
- Weekly Service; and
- Weekly / Mobile Service

Builtfontein and Zandfontein are settlements that are in community owned farms where opportunity exist for additional rural housing upgrade. Weekly mobile services operate in these communities and an establishment sattelite services points is vital.

1.3.2 Movement Corridors

a. Primary Corridor

R56 is the Primary Corridor.

b. Secondary Corridor

R604 connecting Matatiele to R617 is Secondary corridor and when its potential is strengthened through tarring can provide a short route from Matatiele to Pietermaritzburg and visa versa.

c. Tertiary Corridor

These corridors provide vital linkages to service satellites in the district and ensure connectivity with service delivery in the communities – eg. R607.

1.3.3 Landuse And Environmental Management

a. **Wetlands (Potential Conservation Areas)**

Only one formal conservation area exists and is within the urban area of Matatiele. (Mountain Lake).

Potential exist for extensive conservation measures on large areas of wetlands to be implemented throughout the Municipality with respect to important eco-systems, habitats, landscapes and fauna (especially the Franklin Vlei).

b. **Commercial Afforestation, Agriculture and Tourism**

Commercial agriculture access throughout the municipality. Future development of the municipality should seek to preserve the agricultural land in the area, develop its specific potentials and provide for diversification eg. Tourism and forestry. Although other areas have been identified where such specific diversification should occur they should not be viewed as inhibiting commercial agriculture occurring on a mixed basis.

c. **Primary Getaway, Adventure and Eco-tourism**

Although much of the area is farmed for commercial agriculture it contains a vast combination of natural resources and landscapes for getaway tourism.

In the course of diversifying to tourism conservation efforts should be applied using protection mechanisms such as bio-sphere reserves. Any tourism development should integrate with such efforts. From a tourism plan done by the distrct, and the local municipality, Matatiele shows potential for this tourism especially to the south of R56 and along the wetlands.

d. **Potential opportunity for rural housing**

Sandfontein and Builtfontein have potential for rural housing to improve socio-economic conditions of the rural communities.

e. **Urban Expansion**

Areas within the urban components of Matatiele and Cedarville to the North of the CBD have been identified as having potential for urban expansion.

1.4 Greater Kokstad Municipality (Spatial Development Framework) KZ 5a4

1.4.1 Nodes

a. **Primary Node**

Kokstad node is the largest population centre in the Greater Kokstad Municipality municipality and predominates massively in the Municipality's economy. In this node the CBD is dissected by R59 and intersected by R617 which are both Primary Movement Corridors.

Being the major economic node and regional service centre to the rural hinterland it also functions as the administrative centre and accommodates the municipal offices, hospital, schools, police station and magistrates court as well as a large variety of commercial and retail outlets and has recently extended housing infrastructure at Shayamoya and more housing is proposed to meet housing demand (also servicing the Eastern Cape).

b. **Secondary Node**

Swartberg the second largest population centre in the municipality on the R617 primary movement corridor plays an important role as a service centre to farmers in the north of the municipality by providing a small variety of commercial and social services.

c. **Satellite Service Nodes**

New Amalfi Franking and Kingscote were identified as Sattelite Service Nodes within the Greater Kokstad Municipality.

d. **Primary Tourist Nodes**

Mount Currie Nature Reserve, the proposed Cultural Centre opposite Wimpy, and the Mission at Kags Post are primary tourist nodes in the Greater Kokstad Municipality. These have cultural and historical significance which will enhance tourism in the Municipality.

1.4.2 Movement Corridors

a. Primary Corridor

R617, N2, R56 are the primary corridors within the Municipality. These provide high linkages with surrounding municipalities and economic nodes. Along R617 there are views of scenic beauty and landscape which can attract both domestic and international tourists thereby promoting LED projects at some locations.

b. Secondary Corridor

D609 joining D622 to Wansbeck is a secondary corridor and also provides linkages to Drakensberg.

P604 connecting Matatiele to R617 provides a short cut to Pietermaritzburg and the N3 and its potential could be strengthened through tarring.

R602-1 to Creighton and Umzimkulu provides linkage between Franklin, Umzimkulu and Creighton.

c. Tertiary Corridor

These corridors provide vital linkages to service satellites in the district and ensure connectivity with service delivery in the communities.

1.4.3 Landuse And Environmental Management

a. Wetlands (Potential Conservation Areas)

Only one formal conservation area exists and are within the urban area of Kokstad (Mount Currie Nature Reserve).

Potential exists for extensive conservation measures on large areas of wetlands to be implemented throughout the Municipality with respect to important eco-systems, habitats, landscapes and fauna (especially the Franklin Vlei).

b. Commercial Agriculture and Tourism

Commercial agriculture accurs throughout the municipality. Future development of the municipality should seek to preserve the agricultural land in the area, develop its specific potentials and

provide for diversification eg. Tourism and forestry. Although other areas have been identified where such specific diversification should occur they should not be viewed as inhibiting commercial agriculture occurring on a mixed basis.

c. **Primary Getaway, Adventure and Eco-tourism**

Although much of the area is farmed for commercial agriculture it contains a vast combination of natural resources and landscapes for getaway tourism.

In the course of diversifying to tourism conservation efforts should be applied using protection mechanisms such as bio-sphere reserves. Any tourism development should integrate with such efforts. From a tourism plan done by the distrct, and the local municipality, Greater Kokstad shows potential for this tourism.

d. **Potential opportunity for rural housing**

The settlements through the IDP process with potential for rural housing have been identified in the municipality e.g. Pakkies, Makhoba and Wansbeck. This will however improve the socio-economic conditions of the rural communities.

e. **Urban Expansion**

Land adjacent to the Mount Currie Motel to the east and land to the North of the N2 has potential for Urban expansion in the form of middle to high income housing and industrial development. This would assist in job creation within the Municipality. Land to the North of Mount Currie Secondary School has got potential for urban expansion.

1.5 Kwa Sani Municipality (Spatial Development Framework)- KZ 5a2

1.5.1 Nodes

a. **Primary Node**

Underberg and Himeville is seen as a primary node as it is fed by development corridors in terms of people and physical thresholds. There is provision of concentration of different activities and services at this primary node.

b. **Satellite Service Nodes**

These were identified in Ntwasahlobo / Broteni, Stepmore and Mqatsheni.

c. **Tourism and Recreation Node**

These areas have been identified in the Drakensberg Special Case Area Plan (SCAP) as areas of Tourism and Recreation Node and these areas are mainly Bushman's Nek, Garden Castle, and Sani Pass. These areas attract a lot of tourists all year round.

1.5.2 Movement Corridors

a. **Primary Corridor**

R617, and R56 are the primary corridors within the Municipality. These provide high linkages with surrounding municipalities and economic nodes.

b. **Secondary Corridor**

MR 265 through Coleford Nature Reserve, MR320, MR252, MR127, MR346 and MR 125 provide access to areas for additional tourism attention, dense rural settlements, and neighbouring Municipalities.

c. **Tertiary Corridor**

The remainder of the Roads provide vital linkages to service satellites in the district and ensure connectivity with service delivery in the communities.

1.5.3 Landuse And Environmental Management

a. **Commercial Agriculture and Tourism**

Well managed agriculture occurs almost throughout the municipality. Future development of the municipality should seek to preserve the agricutlural land in the area, develop its specific potentials and provide for diversification eg. Tourism.

Although much of the area is farmed for commercial agriculture it contains a vast combination of natural resources and landscapes for getaway tourism.

b. **Primary Getaway, Adventure and Eco-tourism**

The area on foot of the Okhahlamba Park is identified as Primary Heritage / Adventure and Eco Tourism area.

c. **Urban Expansion**

The area between Underberg and Himeville is seen for urban expansion as the people would like to see Underberg and Himeville as one centre in the future.

1.6 Ingwe Municipality (Spatial Development Framework) - KZ 5a1

1.6.1 Nodes

a. **Primary Node (Hub Centres)**

These were identifed at Creighton, Donnybrook and Bulwer.

b. **Secondary Node (Primary Service Centres)**

Hlanganani and Centocow Mission have been identified as secondary nodes in the Municipality.

c. **Satellite Service Nodes (Secondary Service Centres)**

Dlazini, Memela, Masameni and Ncwadi have been identified as satellite service nodes.

1.6.2 Movement Corridors

a**. Primary Corridor**

R617 is a Primary Corridor as it has greatest potential in terms of tourism and service growth due to the relatively high volumes of traffic on the route. This route links Drakensberg Resorts to Pietermaritzburg.

b. **Secondary Corridor**

R612 through Bulwer Station, Donnybrook, and Ixopo is a secondary corridor.

c. **Tertiary Corridor**

These corridors are a series of district roads through Wards 4, 3, 2 and 1.

d. **Rail Corridor**

This corridor is intended to revitalise the railway system traversing the District and Ingwe with the view to using it for passengers, timber and tourism transportation. The rail corridor adds significant value to the tourism potential of the area, particularly since it is linked to the Eastern Cape as part of a national tourism route.

1.6.3 Landuse And Environmental Management

a. **Conservation Areas**

Formal conservation areas exist within Ingwe Municipality.

Potential exists for extensive conservation measures on Large areas of wetlands to be implemented throughout the Municipality with respect to important eco-systems, habitats, landscapes and fauna.

b. **Primary Getaway, Adventure and Eco-tourism**

The relatively unspoilt natural environment of the Ingwe Municipality has high eco-tourism and adventure-tourism potential. Furthermore Ingwe encompasses a number of veld types which have their own unique eco-systems and species distribution. Some of them have special ecological value and must be protected to maintain bio-diversity.

1.7 Ubuhlebezwe Municipality (Spatial Development Framework) - KZ 5a5

1.7.1 Nodes

a. **Primary Node**

Ixopo is a primary node that provides services to meet the local requirements of the Municipality. This node contains a wide range of local and district level public and private sector activities.

b. **Secondary Node**

Highflats is a secondary node that also provides a range of public and private sector activities.

c. **Satellite Service Nodes**

Hlutangungu, Jolivet, Kwabhidla, Umgodi, Emazabekweni, Carrisbrooke, Mahehle, Chibini and Marianthal.

1.7.2 Movement Corridors

a. Primary Corridor / Activity Corridor

R612 has been identified as an Activity Corridor in the Municipality. R56 is also a major movement corridor providing linkages with neighbouring towns and economic centres.

1.7.3 Landuse And Environmental Management

a. **Wetlands (Potential Conservation Areas)**

The Spatial Framework identified proclaimed and unproclaimed conservation areas and included rivers and other areas of environmental importance. These areas require a particularly high degree of protection as they are key areas of biodiversity because they provide ecosystem services or are unique landscapes or viewpoints or areas of ecological, historical or cultural importance. It also included areas that by virtue of their ecological of biological functions provide services that contribute to natural disaster management systems.

b. **Commercial Agriculture**

Agricultural land is intended to provide land for buildings and uses associated with farming practices and particularly with the following activities:

- The production of food and the cultivation of crops
- The farming of livestock, poultry and bees
- Horticulture and market gardening
- Residential accommodation for farmers together with the necessary community facilities.

1.8 Mkhomazi Wilderness Area (Spatial Development Framework) - KZDMA43

N/A

1.9 KZDMA43 SOCIO ECONOMIC SURVEY

Inclusion of the information and planning within the DMA was one of the gaps identified by the MEC on the Sisonke District Municipality IDP. During the compilation of the District IDP, information pertaining to the DMA was not readily available, as the social and economic status of the DMA was not documented. With regards to that a socio-economic survey was conducted to determine the socio-economic status of the DMA and the extent to which development is taking place. The survey was conducted such that a member of each household was interviewed as a representative for that particular household.

1.9.1 DMA'S DEVELOPMENT STATUS QUO

- **LOCALITY OF THE DMA**

The DMA is located to the extreme West of the Sisonke District Municipality. It forms part of the boarder between the Sisonke District Municipality and Lesotho. The area is bordered by Impendle Local Municipality to the East, Kwa Sani Local Municipality to the South East, KZDMA 23 (Uthukela District Management Area) to the north, Greater Kokstad to the South and Lesotho to the west.

- **SPATIAL ANALYSIS**

The DMA is characterized by:

- Spread settlement pattern;
- Low density;
- Rugged topography;
- Mountainous landscape; and
- The area is predominantly rural in nature

All these characteristics will make it difficult and costly to service the area.

- **DEMOGRAPHIC ANALYSIS**

There are approximately 1000 people in the area. However, this figure is different from the one reflected in the 1996 statistics.

- **SOCIO- ECONOMIC NALYSIS**

Tourism

Tourism has been highlighted as a potential economic pillar in the District and this potential has not been fully explored. The DMA has huge potential for eco and adventure tourism. As a result a portion of the area forms part of the Maloti Drakensberg Transfrontier Project. The project is not yet at the implementation stages as a result there are no tourism development initiatives in the area. The area is environmentally sensitive and has been proclaimed a Protected Area and

is managed by the Kwa Zulu Natal Wild Life. As tourism in the area is based on the natural environment, it is imperative that any development taking place in the area must be compatible with the surrounding land use.

Economic Profile

Most people in the DMA are unemployed. Job opportunities are highly inadequate and self-employment is seen as the solution. However, resources and skills to entertain that option are almost non-existent. Most of the youth and middle-aged are unemployed and those households with elders rely on the pension-grant for survival. Only 1 % of the population earns more than R2000 per month. 99% of the respondents earn less than R1 000 per month. The rest of the people rely on part-time jobs to survive. What seems to exacerbate the situation is the notion of the low levels of education, resulting in a few people who have the potential to hold professional positions in the working environment.

Education

The area has two primary schools and a secondary school. A crèche does exist within one of the primary schools. The establishment of a crèche was an initiative by the community and any recognized institution does therefore not subsidize it. As a result of the spread settlement pattern, appalling road conditions and lack of public transport in the area, the majority of children do not have adequate access to these facilities.

Health

The DMA does not have clinics or hospitals. In essence, health facilities are non-existent in the area. The nearest health facilities are in Underberg and Impendle Municipality and access to these facilities is cumbersome because of high transport costs. There are medical ailments such as cholera, bilharzia, skin rashes and diarrhoea that are prevalent in the area. With the absence of medical facilities, the community is faced with an unpleasant situation. Moreover, medical emergencies are not catered for in these communities.

Safety and Security

There is no police station in the DMA. In existence though, is a community-policing forum. The nearest police stations are in Underberg and Impendle. However, the crime rate in the area is low with the most common crime being stock theft.

Recreational

Recreational facilities are minimal in the area with only a sports field as a centre for recreation for the youth. Other than the one sports field, there are no facilities that are a source of entertainment in the area.

- **TECHNICAL/ ENGINEERING ANALYSIS**

Electricity

There is absolutely no electrical connection in the DMA. As a result, there is heavy reliance on the natural resources as a source of power. The main source of power is wood.

Water and Sanitation

The source of water in the area is river streams. Most people have to walk a distance of up to a kilometer to collect water. As a result of this the water-borne diseases such as diarrhoea, cholera and skin-related diseases are prevalent. A few cases of bilharzias have been quoted as problematic.

The sanitation facility for most people is a pit that the people devise themselves. Some households have Ventilated Improved Pit-Latrine (VIP) system but very few have access to the VIP. However, it has been indicated by many that the VIP would be the most preferred sanitation facility.

Roads and Transport

The quality of roads is considered to be very poor. This makes access to surrounding areas difficult. The main form of transport is the public transport that is not easily accessible. In many instances, people have to travel long distances to get to where the public transport is accessible. Rugged topography, mountainous landscape and river streams are an obstacle in the development of road networks. It is therefore clear that constructing and upgrading roads in the area would be extremely costly. What exacerbate the situation is the spread settlement pattern and low density in the area.

Telecommunication

A few people attested to the availability of mobile phones. However, network connection seems to be a big problem in this regard.

- **NATURAL ENVIRONMENTAL ANALYSIS**

Environment

In as much as most of the DMA is under the control of KZN Ezemvelo, the people in the area have no awareness pertaining to environmental management nor any initiatives that are undertaken by KZN Ezemvelo within the DMA.

- **CAPACITY BUILDING INITIATIVES**

It has been noted that there are projects aimed at promoting Local Economic Development in the area. These projects are: poultry farming, piggery, gardening, baking and sewing. These projects however, are at the early stages of implementation and do not provide sustainable income to the community members. Apart from that, the people involved are unskilled and have no access to funding as a result the projects are not viable.

1.9.2 DEVELOPMENT PRIORITY ISSUES, OBJECTIVES AND STRATEGIES

The development priority issues are the same as those contained in the IDP of Sisonke District Municipality. Hence the priority issues are the same the objectives and strategies are also the same.

1.9.3 PROPOSED DEVELOPMENT PROJECTS

- **LOCAL ECONOMIC DEVELOPMENT PROJECTS:** Poultry farming, gardening, piggery, baking, sewing and bid work. Funding to capacitate the local residents of the DMA and to implement local economic development projects is required to make the above projects viable.

- **SOCIO-ECOMNOMIC PROJECTS:** Construction of a clinic and a hospital, construction of additional primary school, secondary school, a crèche, and construction of a police station.

- **TECHNICAL/ ENGINEERING PROJECTS:** Water Scheme, Ventilated Improved Pit- Latrine (VIP) and construction and upgrading of roads and bridges.

1.10 SISONKE DISTRICT MUNICIPALITY (SPATIAL DEVELOPMENT FRAMEWORK) - DC 43

The Sisonke SDF shows hierarchy of different development elements and criteria applied it identify the same such as:

1.10.1 Development nodes (settlement hierarchy)

a. *Primary Nodes*

These were identified to be Kokstad, Ixopo, and Matatiele because of economic activities and forces to these areas in the district.

b. Hubs

Cedarville, Creighton, Himeville, Swartberg, and Underberg in the district were identified as hubs as they render services to the surrounding communities.

c. Secondary Nodes

These Donnybrooke, Highflats, Franklin, and Bulwer were identified as secondary nodes.

d. Service Satellite nodes

Stepmore, Ncwadi, Pevensy, Jolivet, Centacow Mission, and Ntwasahlobo were also identified as satellite nodes

e. *Tourism and Recreation Nodes*

The following areas have been identified as tourism and recreation nodes. Bushmans Nek, Garden Castle and Sani Pass

1.10.2 Development corridors (movement corridors)

a. Primary Corridors

R56 and N2 are major movement corridors in he district and provide linkages with urban centres.

b. Secondary Corridors

R612 and R617 provide secondary movement channels thereby promoting linkages for tourism opportunities and agriculture.

c. *Potential Secondary Corridors*

D1201, P604, MR126, and MR27-2 have potential of enhancing movement between centres and promoting economic activities between centres.

d. *Tertiary Corridors*

1.10.3 Land use and land use management

This was categorised in

- ***Primary Getaway, Adventure and Eco-Tourism,***
- ***Commercial Agriculture and Tourism,***
- ***Potential for Rural Housing, and***
- ***Potential for Low Cost Housing;***

1.10.4 Environmental Inventory

Non Negotiables " No Go" areas were identified and broad mitigation measures for development along those developed.

1.10.5 Intervention areas

These are proposed as

- ***Areas for Additional tourism Attention,***
- ***Potential Commercial Afforestation/ Agriculture and Tourism***.

1.10.6 Areas with Schemes:

DISTRICT	MUNICIPALITY	EXISTING SCHEME
Sisonke	Matatiele	Matatiele Cerdaville
	Greater Kokstad	Kokstad
	Kwa Sani	Underberg Himeville
	Ingwe	Creighton
	Ubuhlebezwe	Ixopo

1.11 Alignment of Local Municipalities with Neighbouring and District Integrated Development Plans (and SDF's)

In the preceding study the alignment of the Local and District Spatial Development Frameworks were compared and analysed to establish the spatial patterns of land use within the Sisonke District Municipality. It is evident from the study that there is a certain degree of inconsistencies with the alignment of some local municipalities Spatial Development Frameworks with that of the SISONKE District Municipality and vice versa. It is apparent that
co-ordinaton at the District level is needed. Examples where general inconsistencies were found were as follows:

- Many of the SDF's were not informed by Environmental consideration (C-Plan and Minset), population densities, agricultural land potential (Bru's), development trends, geotechnical considerations, and historical significant areas.
- Legibility of the SDF's was poor in some instances
- District and local nodes were not aligned;
- RSS Concept has not been incorporated in some local Municipalities
- Agricultural interfaces were not aligned with neighbouring local municipalities and that of the Districts identified agricultural zones;
- Priority areas and opportunity points were in many instances not addressed in the Spatial Development Framework,

- Dis-integration of environmental issues to the SDF and IDP
- In many areas environmental management was not a high priority or a neglected area of focus.
- Opportunity for future growth and development was not identified in the SDF and its financial implications for services not included in the IDP.

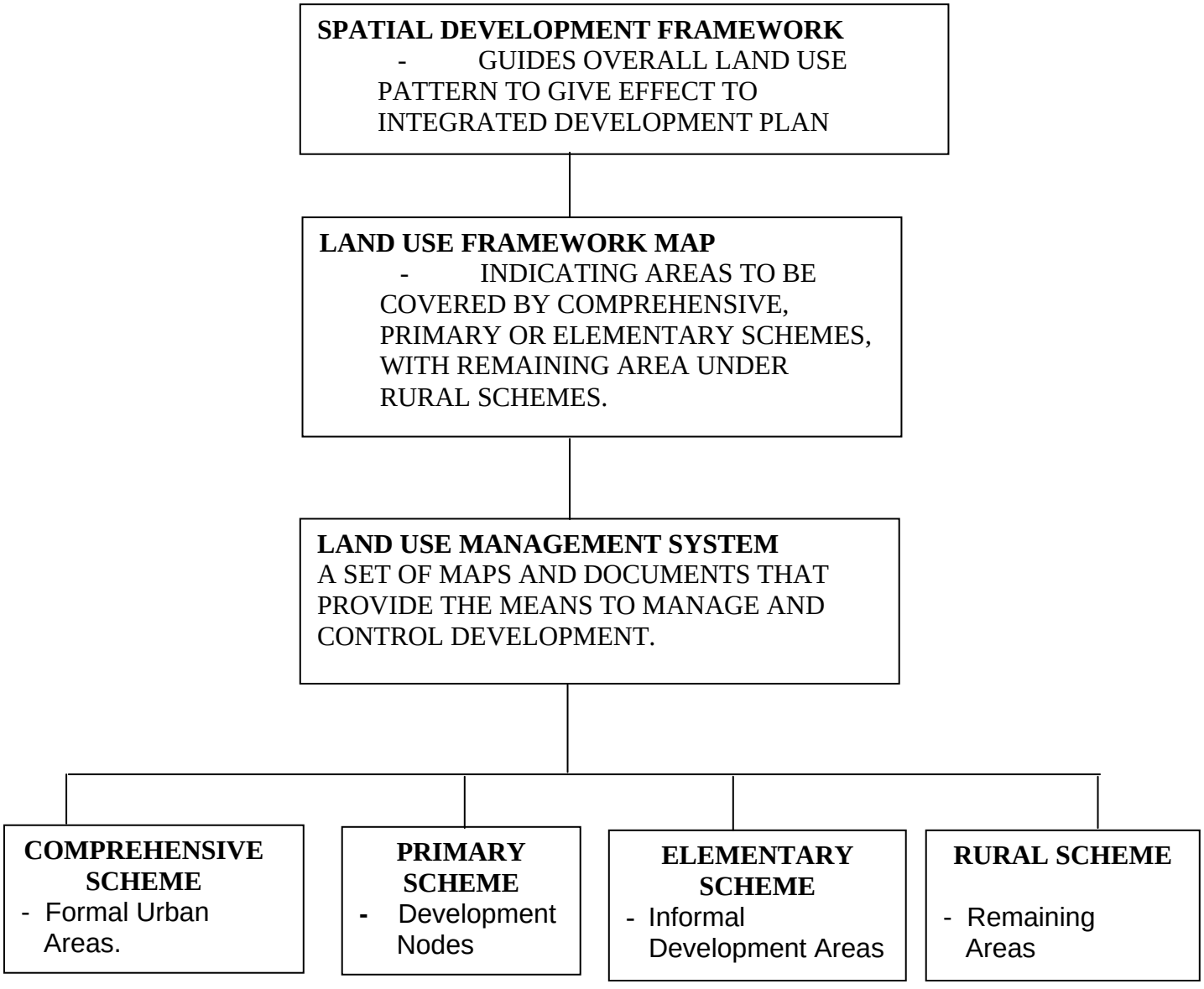
Recommendations

Overall the Spatial Development of both the District and Local Municipalities need to be aligned towards common goals, visions and objectives. The Spatial Development Frameworks should be based on the following:

- Location and accessibility
- Population concentrations
- Availability of services
- Economic opportunities
- Geotechnical considerations
- Consideration for areas of conservation and high agricultural production potential.
- Consideration of areas that are of environmental and historical significance.
- Consideration of priority areas of spending and areas of opportunity for further growth and development
- Consideration of Land Reform Initiatives or integrated sustainable development planning incorporating Land Reform projects at both the District and Local Municipality.
- Consideration of Tribal authority Areas
- Consideration of areas for tourism development and management
- Consideration of areas for future residential development and
- Consideration of mixed use for potential growth and development.
- Consideration of alignment of Development plans and Spatial Development Frameworks with the District and Local Municipalities as well as the District Municipality with other neighbouring District Municipalities to ensure integration and alignment for overall Land use Management.
- Consideration of C-Plan and Minset Data and integration thereof into the SDF.

The next phase of the report puts forward guidelines fort the formulation of Spatial Development Framework (SDF's) and Land Use Management Systems (LUMS). It also sets out the context of Land Use Management Systems as related to the Spatial Development Framework and Spatial Land Framework.

1.12 CONTEXT OF A LAND USE MANAGEMENT SYSTEM



CHAPTER 2
GUIDELINES FOR THE FORMULATION OF SPATIAL DEVELOPMENT FRAMEWORKS AND LAND USE MANAGEMENT SYSTEMS

SPATIAL DEVELOPMENT FRAMEWORK (SDF)

2.1 What is a Spatial Development Framework (SDF)?

A Spatial Development Framework is a guide that informs all decisions relating to land use development and management within a municipality. Development informants, strategies and development actions, which have a spatial implication, also guide a SDF. It broadly informs decisions relating to future development and service provision.

It should be born in mind that the Spatial Development Frameworks (SDF) are reviewed at an annual basis so as new information becomes available this new information can be incorporated into the SDF and IDP. The SDF should not be seen as a blueprint plan. Legally the preparation of the SDF is both the responsibility of the Local and district municipality.

2.2 What are the aims of the Spatial Development Framework?

The aims of a spatial development framework are to:

- Promote sustainable functional and integrated settlement patterns in order to:

  - discourage low density sprawl;
  - generate social and economic opportunities for people; and
  - promote easy accessibility to those opportunities.

- Maximise resources efficiently; for example:

  - Ensure the protection of the available environmental resources within a municipality;
  - Protect productive land for agricultural purposes.

- Conservation and protection of environmentally sensitive areas and important bio-diversity.

- Enhance regional identity and unique character of place.

- Ensure conformance with the neighbouring district's and provincial spatial development frameworks (Sectoral Guidelines for the review of Integrated Development Plans in KwaZulu-Natal, DTLGA).

The DTLGA further provided guidelines for the preparation of a Spatial Development Framework. The guidelines indicate that the principles and objectives of the Provincial Growth and Development Strategy need to be taken into account and that maps depicting current spatial patterns should be provided.

2.3 Purpose

The purpose of the current project is to ensure that the SISONKE District Municipality and the Local Municipalities contained within its jurisdiction have Spatial Development Frameworks that reflects the directions of growth and future patterns of land uses and is guided by those development informants, strategies and development actions which have a spatial implication. It broadly informs decisions relating to future development and service provision within a municipality.

2.4 Legislation and Policy

2.4.1 The Regulations promulgated in terms of the Municipal Systems Act, 2000 set out the following requirements for a Spatial Development Framework:

"*A spatial development framework reflected in a municipality's integrated development plan must:*

(a) give effect to the principles contained in Chapter 1 of the Development Facilitation Act, 1995 (Act No. 67 of 1995);
(b) set out objectives that reflect the desired spatial form of the municipality;
(c) contain strategies and policies regarding the manner in which to achieve the objectives referred to in paragraph (b), which strategies and policies must-
  (i) indicate desired patterns of land use within the municipality;
  (ii) address the spatial reconstruction of the municipality; and
  (iii) provide strategic guidance in respect of the location and nature of development within the municipality.
(d) set out basic guidelines for a land use management system in the municipality;
(e) set out a capital investment framework for the municipality's development programs;
(f) contain a strategic assessment of the environmental impact of the spatial development framework;
(g) identify programs and projects for the development of land within the municipality;

(h) be aligned with the spatial development frameworks reflected in the integrated development plans of neighbouring municipalities; and

(i) provide a visual representation of the desired spatial form of the municipality, which representation –

(i) must indicate where public and private land development and infrastructure investment should take place;

(ii) must indicate desired or undesired utilization of space in a particular area;

(iii) may delineate the urban edge;

(iv) must identify areas where strategic intervention is required; and

(v) must indicate areas where priority spending is required".

2.4.2 The Provincial cabinet approved the Provincial Growth and Development Strategy for KwaZulu-Natal in July 1996. It is presently under review. This plan sets out a development planning strategy aimed at the social and economic upliftment of KwaZulu Natal's population. It contains seven programmes to be pursued by the Province over a 25-year period.

Programme six covers "The formulation of an Appropriate Spatial Framework" which advocates the provision of a Hierarchy of Spatial Planning, Spatial Co-ordination of services around Nodes and Development Corridors.

Other programmes contain elements which impact on the Spatial Framework. Programme 4 "Addressing the Needs of the Poor" includes Land reform and the provision of Rural Service Centres. Programmes 1 and 2 "Building a winning Province" and "Enabling Local Economic Development" covers trade and tourism. Areas where these can be promoted need to be identified. Programme 3 "Fuelling the Powerhouse" includes housing development and upgrading which need to be addressed spatially.

2.4.3 The following sections of the report address the requirements, (of the regulations setout in 2.4.1.1) as far as existing information permits.

2.4.4 **Development Facilitation Act**

Principles contained in Chapter 1 of the Development Facilitation Act, 1995 are as follows:

- *Policies, administrative practice and laws should provide for urban and rural development, facilitate development, discourage illegal occupation of land, and promote efficient and integrated development.*

- *In promoting efficient and integrated development, policies, practice and laws should also:*
  - *promote the integration of social, economic, institutional and physical aspects of land development;*
  - *promote integrated land development in urban and rural areas;*
  - *promote the availability of residential and employment opportunities;*
  - *encourage the optimal use of existing resources;*
  - *promote a diverse combination of land uses;*
  - *discourage urban sprawl;*
  - *assist in correcting historically distorted settlement patterns;*
  - *encourage environmental sustainability;*
  - *encourage the active participation of communities in the land development process;*
  - *develop the skills and capacity of people involved in land development;*
  - *laws and procedures must be clear and made generally available and should promote trust and acceptance;*
  - *provision must be made for security of tenure and different tenure options;*
  - *land development should be co-ordinated so as to minimize conflict and stimulate competition;*
  - *provision must be made for fair and transparent decision making and appeal*

Development in the both District and Local Municipalities should therefore seek to adhere to these general guidelines and in particular to the following:

- Promote the integration of social, economic, institutional and physical aspects of land development.
- Promote integrated development in rural and urban areas, and with each other.
- Promote residential and employment opportunities, and in close proximity with each other
- Optimize existing resources.
- Promote diverse combination of land uses.
- Promote compact cities and discourage urban sprawl.
- Assist in correcting historically distorted settlement patterns, and optimize the use of existing settlements.
- Meet basic needs in economically and environmentally efficient manner, and should be viable.
- Provision must be made for security of tenure and different tenure options.

- Land development should be co-ordinated so as to minimize conflict and stimulate competition.
- There should be a rapid release of land for development.
- Encourage environmental sustainability.
- That the disturbance of eco-systems and loss of bio-diversity are avoided or where they cannot be altogether avoided, minimized and remedied.
- Pollution and degradation of the environment is avoided, or where they cannot be altogether avoided, minimized and remedied.
- Disturbance of landscapes and sites that constitute the nations cultural heritage are avoided, or where they cannot be altogether avoided, minimized and remedied.

2.5 Objectives of a Spatial Development Framework

The Spatial Development Framework of a Municipality should therefore aim to achieve the following:

- indicate existing and future directions of growth;
- show major movement patterns to inform transport plans and promote maximum accessibility;
- promote conservation of natural and built environmental resources;
- promote economic development;
- discourage inappropriate land uses and promote efficient use of land by discouraging urban sprawl;
- identify special areas for development for targeted management to redress past imbalances.
- Promote the value of eco-systems services i.e. its economic value regarding its use.

2.6 Content of a Spatial Development Framework

The content of a Spatial Development Framework should also include namely:

1. Cadastral and Jurisdictional Boundaries;
2. Transport and Communication Networks and Linkages;
3. Land Use and Settlement Pattern;
4. Areas of Relative welfare and Deprivation;
5. Areas of relative potential; example bio-diverse ecosystems and the natural environment.
6. Spatial Development Trends.

The Spatial Framework should aim to achieve the following:

Encouraging service providers to work together towards a common goal of alleviating poverty;

- To plan, adapt and integrate service delivery
- To link departmental budgets / finances and promote integrated delivery
- To increase community access to services and reduce the cost of delivery
- To effect change in the way public service delivery agencies operate
- To adapt services to meet local, social and economic needs
- To establish a model for rural service delivery which is replicable.

Co-ordinating the time and the place where services are provided / delivered.

- Reducing the cost of service delivery through sharing of infrastructure and resources
- Improve convenience to communities by providing a number of services, at one point at one time.

Creating economic opportunities at service delivery points.

- Locating residential populations around service delivery points to stimulate market activity and (visa versa)
- Stimulating investment opportunities around service points.
- Creating opportunity for greater diversification of economic activity with emphasis on tourism and recreation development, appropriate industrial development and agriculture.

In meeting the above it is intended to create a framework for future management of a municipality and a basis to facilitate both public and private investment in a municipality to boost investor confidence.

2.7 Strategies and Policies

Development Issues that need to be taken into account at a strategic level are as follows:

- The strategic location of a municipality in terms of its role in promoting maximum accessibility between major nodes, urban centres and adjacent provinces.
- The promotion and protection of high value agricultural land.
- The strategic location of a municipality along major tourism routes and the promotion of its tourism areas.
- The protection of extensive areas of indigenous vegetation and watercourses, requiring careful environmental management.

Policies relating to the Spatial Framework are as follows.

(i) **<u>An Integrated Approach to Land Use Management</u>**

- To create a more efficient urban form by:
  - densifying existing urban nodes in appropriate locations
  - strengthening secondary service centres
  - identifying and implementing development corridors
- Ensure a more efficient use of infrastructure
- Promoting more flexible land use mix in appropriate locations.
- Giving preference to those land uses that will assist in achieving a Municipality's Vision and particularly the local economic development and environmental objectives
- Preserving high quality agricultural land
- Promoting diversity in land use, especially in and around the Primary Node.
- Ensuring that environmental objectives are taken into account in the formulation and adjudication of development proposals
- Creating an environment conducive to investors and small entrepreneurs
- Optimizing the inherent tourism and recreation potential of a municipality.

(ii) **Land Reform**

New land reform projects on appropriately located land should be identified, in particular those associated with commercial agriculture in order to prevent the loss of productive agricultural land to non-agricultural uses, and to facilitate the managed transition of tenure for farm workers communities.

(iii) **Environmental Management**

Important areas of environmental significance need to be identified to protect and preserve valued ecosystems, natural habitats and special case areas in order to minimise negative impacts. In terms of land use management, the specific ecosystems and vegetation communities that require environmental management are wetlands, grasslands, and indigenous forests that contain the habitats of important species. It should be noted that environmental management need not be limited to the protection/preservation but also areas may be identified for opportunities that a particular environment may provide such as the rehabilitation of wetlands, eco-tourism opportunities etc.

Prior to formulating a LUMS the Spatial Development Framework (SDF) and Strategic Environmental Assessment (SEA) needs to be developed, as they are integral components that inform Land Use Management Systems within a municipality. Both the SDF's and SEA's provide a broad indicative management mechanism that should be addressed in a Land Use Management Scheme.

Prior to formulating a LUMS, a municipality would need to undertake an SEA and EMP. As a basis to the Land Use Management System (LUMS) it is necessary to identify the natural resources within municipal areas and make optimal use of those resources. A Strategic Environmental Assessment (SEA) will therefore identify specific vegetation types (an indicator of environmental quality), assign categories of importance to each, to include the assessment of agricultural potential in rural areas; and suggest specific environmental land use management recommendations in each category, to inform the Land Use Management System (LUMS). Other indicators that the C-Plan Data puts forward needs to also be incorporated. This Data set is available from KZN Wildlife. Degraded environments may provide good linkages for habitat species and also need to be addressed in the assessment of environmental resources within a municipality. The following chapter provides guidelines for the development of an SEA.

CHAPTER 3
GUIDELINES FOR ENVIRONMENTAL MANAGEMENT AND CONSERVATION

3.1 GUIDELINES FOR A STRATEGIC ENVIRONMENTAL ASSESSMENT

3.1.1 Background

Strategic Environmental Assessment (SEA) is the most recent addition to the established list of Integrated Environmental Management tools (IEM).

3.1.2 SEA in South Africa

SEA has rapidly emerged as a tool for planning and environmental management in South Africa. Most South African SEAs have been initiated as a result of consensus amongst public representatives and development proponents that environmental issues should be addressed at an early stage of the project life cycle.

3.1.3 The methodology behind SEA and its approach

SEA is at present a generic term that is not yet linked to a clearly established methodology, and it is thus important to recognise that there is no definite approach to SEA, either in South Africa or internationally. The approach that is suggested is aimed at providing a practical product that can easily be integrated into a Municipality's IDP and its other sectoral plans.

The focus of SEA is on the environment (social, biophysical, oceanographic, and the potential cumulative effects of the key dimensions) and the assessment of the effect of the environment on development, whereas EIA's assess the effect of development on the environment, should development take place. SEA is therefore an important tool for the promotion of sustainable development.

3.2 GUIDELINES FOR AN ENVIRONMENTAL MANAGEMENT PLAN

An EMP should be based on the SEA recommendations and should guide and inform a Municipality's role in the protection of the natural environment, and the facilitation of planning and development processes that are environmentally sustainable. One of the key objectives of the EMP is to provide a user friendly, environmentally sensitive land use management system that is responsive to community needs.

3.2.1 An EMP should:

Serve as a framework to guide environmental management and implementation programmes. Enable the residents and managers of an area to make more effective use of scarce resources and therefore the promotion of sustainable development.

3.2.2 Objectives of an SEA and EMP

The main objective of an SEA and EMP should be to create a comprehensive reference work on strategic environmental issues in a Municipality that is user friendly and contains accepted and current core indicators. The Strategic Environmental Assessment should identify general environmental issues and concerns, strengths, weaknesses, opportunities and threats, while the Environmental Management Plan should identify specific areas within a municipality of environmental sensitivity and suggest specific environmental management principles for each management group, for use by managers and advisors taking into account the SEA recommendations.

3.2.3 An SEA should include the following:

1. An Environmental Issues Assessment – an audit of environmental issues within the municipality to create an understanding of the issues and alternatives proposed.
2. Set the Strategic Context - build on a clear understanding of sustainability and the implications for the Vision, Programmes and Projects of the Municipality and weigh them up against the effect on the environment.
3. Development of Sustainability Indicators - should be appropriate and reflect local knowledge.
4. Institutional Arrangements for Implementation of the Sustainability Framework, Indicators and Environmental Management Plan - which should be discussed with key officials and stakeholders, one of the primary considerations being the user friendliness of the criteria being used to assess the suitability of the indicators and their final selection. Indicators will contain the following information:

a) Status quo directly comparable with the desired conditions, clearly measurable indicators which address qualitative measures;
b) Statement of the desired condition, with actions required to reach the desired condition;
c) Roles and responsibilities of agents who will take responsibility to reach the desired outcome of the actions;
d) Time frames and budget implications.

3.2.4 An EMP should cover the following areas:

1. An Environmental Assessment - an assessment of resource biomes, using existing photographic material and site visits to present an idea of the existing environment.
2. A Sustainability Framework – based on the SEA recommendation to guide development, and assess existing plans and programmes. This framework should be concrete and based on appropriate environmental mapping, photographic, illustrative and user-friendly techniques.
3. An EMP should also include the C Plan data information which is obtainable from KZN Wildlife. This plan has detailed levels of environmental informants and has already been in use by Municipalities in their Strategic Environmental Assessments and their formulation of their LUMS example Unmgeni Municipality. (See Annexure 2 for C-Plan/Minset Guidelines)

The SEA and EMP will be informed by the following legislation and policies:

- The Constitution Act of the Republic of South Africa (No 108 of 1996)
- The National Environmental Management Act (No 107 of 1998)
- The Environment Conservation Act, No.73 of 1989
- The Forest Act, No. 122 of 1984
- The National Water Act, No. 36 of 1998
- The Conservation of agricultural Resources Act, No. 43 of 1993
- The KwaZulu-Natal Heritage Act, No. 10 of 1997
- The Municipal Systems Act (No 32 of 2000)
- The district and local municipality IDP's
- Local Agenda 21 Principles
- National and Provincial Environmental Management Plans
- IDP Guide Pack V, DPLG, (2001)
- Guideline Document for SEA in South Africa, (2000)
- DAEA's guideline document for integrated environmental management for municipalities
- Protected Areas Act
- International Cultural Heritage Convention
- Waste Management Act
- and any other relevant documents and information.

3.3 Sisonke SEA/EMP

In preparation of the Strategic Environmental Assessment (SEA) and Environmental Management Plan (EMP) for the District informants (Important species, eco-systems, landscapes and wetlands, Irreplaceability Index, MinSet Data, Land Use Framework, Land Potential, and Bioresource Groups) were used to produce a map of priority areas for the district.

In the SEA/ EMP for the district, a brief description and Management options are suggested for sustainable resource use under different land use options such as forestry.

An explanation and recommendations for each of the priority ratings were compiled which will aid the municipality in producing and reviewing their LUMF, SDF as well as day to day development application adjudication.

The priority mapping is a guide that identifies red flag areas where additional requirements would need to be met prior to development going ahead.

The objectives and general guidelines (application procedures) in the proposed priority areas are stipulated in detail in the Sisonke SEA/EMP. In the following priority areas, herewith are the suggested land uses:

Priority 1

- Game Ranching
- Formal Conservation
- Conservancies
- Biosphere Reserves
- Eco-tourism

Priority 2

- Extensive Agriculture
- Low Density Tourism
- Game Ranching
- Eco-tourism
- Conservancies
- Biosphere Reserves
- Buffer areas for formal conservation

Priority 3

- Extensive agriculture
- Agro-forestry
- Tourism
- Subsistence agriculture
- Horticulture

Priority 4

- Intensive Livestock
- Cropping
- Agricultural Industry
- Horticulture
- Aquaculture
- Medium Density residential development

The linking of natural systems is an important consideration and objective in designing an environmental management plan.

Open spaces or conservation reserves in an urban environment may be regarded as 'islands'. The number of species found on an 'island' is dependent on the size of the 'island' and the connectivity between them. Larger reserves and those situated close to each other, sustain more species. Conservation reserves might be established on lots within the Sisonke District, which would be suitable for this purpose. A conservation reserve is described as land reserved for conservation purposes, in terms of both fauna and flora, in which invasive alien plants are pro-actively removed and subsequently managed, indigenous plant growth is encouraged and protected, supports the establishment and development of endemic/indigenous fauna, and is maintained by the local council. This will be particularly important in maintaining the integrity of the World Heritage site preventing it from becoming a conservation island.

3.4 Guidelines for Areas considered as Special Case Areas (SCA's)

Between the Forest Act, National Environmental Conservation Act and the Kwa-Zulu Natal Hertiage act, provision is made for protection of natural environments, species of concern and our cultural heritage. If interpreted liberally, these terms are very broad and could encompass a very wide variety of features. In addition, PDA makes provision for the integration of environmental matters into development plans and makes environmental matters into development plans and makes environmental assessments mandatory.

For this reason, it is proposed that a SCA should be declared only where one or more of the following conditions exist:

- The area or feature is complex and has parameters or characteristics which are not readily encapsulated or are not covered by the terms of any one of the Acts and policies reviewed above (i.e. a SCA could integrate the inappropriate elements from a multitude of existing, specific pieces of legislation).
- The area or feature is being subjected to inappropriate development and is losing its valued character or function, remedial action is necessary.
- Where it is advisable to ensure appropriate development in an area in a specific, object-oriented direction. Implicit within this is need, not just to provide physical protection, but also to "control" activities.
- Where there is a need for customised legally binding regulations to provide for conservation or protection of the area, which apply to that area alone and which are more restrictive than those generally in effect.
- The area in some way unique or of other very high value. The SCA "concept" should not be weakened through overuse or application for less strategic routine purposes.
- The area or feature has properties that give it provincial, national or international importance.
- Where there is a need to control public use of, or access to, resources so as to ensure resource sustainability.
- Where the value of an area or feature merits its own management and or advisory authority and or legislation.
- Where there is a need for continuos management and monitoring of an area and the responsible authority is unable to fulfill that function effectively.

While examining criteria under which a SCA should be established it is apparent that there are certain ways in which a SCA should not be used. It should not be used. To establish a unified management/control authority in places or circumstances where administration currently falls under a number of authorities who are, for whatever reason, failing to co-operate or to act effectively; or to merely create institutions in addition to existing ones (i.e. an SCA should not be used to resolve purely administrative problems). Provisions made in the PDA for joint planning committees and for the Minister to intervene.

A number of acts provide conservation measures that are, to varying degrees, similar to those of the PDA. It is therefore apparent that an area should be declared as a SCA only in the event of it meriting protected areas status and that, for some reason, none of the 'target specific" Acts will provide appropriate or effective protection and management at a provincial level.

EXAMPLE OF AREAS THAT MERIT DECLARATION AS A SCA- THE KWAZULU-NATAL DRAKENSBERG

The KwaZulu-Natal Drakensberg is a region that has landscapes and features that are found nowhere else in South Africa. The higher regions have been recognized as being of value and have been placed under formal conservation are now likely to be declared a World Heritage Site. Particular reasons for such action include:

- The scenic beauty of the area;
- Protection of fauna and flora. The area is recognized as a center of endemism and contains a number of species which have very restricted distribution;
- Protection of the historic, cultural, archeological, palaeotological and other features of social or scientific value. Of particular note in this regard is the San or Bushman rock art;
- Protection of renewable resources such as water. The region has a high rainfall and is a nationally important water catchment area; and
- Provision of outdoor recreational opportunities.

(Resource: Criteria for the Designation of Special Case Areas in Terms of The Planning and Development Act, Metroplan, 2000)

3.5 Managing the Environment Outside the DMA

Management of conservation should not only focus within the DMA. However, it should move beyond local boundaries and incorporate all environmentally sensitive areas. To this end, it is essential to work with the neighboring community in identifying ecological sensitive areas. This will have multiplier effects, in a sense that, there will be job opportunities for local residents. Furthermore, it will enable local residents to learn more about the environment and ensure that they maintain environmentally sensitive areas.

3.6 Recommended Land Use Management Plan Guidelines for the KZ District Management Areas (KZDMA43) – Mkhomazi Wilderness Area

- A gradation of development intensity away from the borders of the subject area (particularly the eastern border). This implies a buffer zone along the western boundary within which low intensity development is allowed.
- Adjoining the buffer zone, there is a need for introduction of a flexible transition within which low intensity uses will be allowed e.g. conventional mixed farming; tourism and tourism related development of low intensity, subsistence agriculture and designs which are aesthetically pleasing.

(The above-proposed spatial guidelines are in line with the vision and the principles as suggested from the Special Case Area Plan (SCAP),

CHAPTER 4
GUIDELINES FOR A LAND USE MANAGEMENT SYSTEM

4. GUIDELINES FOR A LAND USE MANAGEMENT SYSTEM

4.1 Introduction

The Department of Traditional and Local Government has set out a sectoral checklist for preparation of Land Use Management System (LUMS) Guidelines in a report entitled "Sectoral Guidelines for the Review of Integrated Development Plans in KwaZulu Natal"

For ease of reference these are set out in the next section. Section 3 sets out the intended approach for the preparation of a LUMS system in a local municipality.

4.2 Land Use Management System (LUMS)

LUMS is a single and flexible system used to manage land within a municipal area. Land Use Management is a combination of all the tools and mechanisms used by a municipality to manage the way land is used and developed.

These tools include *inter alia:* land use schemes; by-laws; licensing; rates and general property information. Municipalities are required to undertake land use planning in terms of the Municipal Systems Act No. 32 of 2000, and also under the proposed National Land use Bill.

> The former Natal Town and Regional Planning Commission (TRPC), now known as the Provincial Planning and Development Commission (PPDC), commissioned a study for the preparation of Guidelines for a Land Use Management System (LUMS).

4.3 What are the Aims of a LUMS?

A Land Use Management System is aimed at co-ordinating all land uses and their relationship to each other - ensuring certainty, order and compatibility of land uses - in order to:

- create safe, healthy and liveable environments through appropriate design standard;

- promoting sustainable development and resource protection (e.g. protection of land assets);
- promoting viable services provision.

4.4 How do you prepare a Land Use Management System?

STEPS	ACTIONS	OUTCOME
1. What is the institutional capacity for preparing a land use management scheme?	• Develop an information system that functions efficiently, both internally and externally to the organization. • Establish and or confirm a planning section / spatial planning unit in your organisation. • Appoint staff in the unit / or consultants taking into consideration the empowerment of the municipality.	Functioning Planning Unit
2. What is the status quo within a Municipality?	• Conduct the information audit to get an indication of the following: ➢ No. of Town Planning Schemes, R293 towns and Amakhosi areas included in the Municipality; ➢ Clarity and accuracy of tenure, cadastral and mapping information. • Existing sectoral plans and policy guidelines. (Transportation, environment, housing, etc). • Financial resources and budgeting. • Identify the level of community consultation required (Consultation Plan).	A clear picture of information gaps and the level of consultation required.
3. What type of a Land Use Scheme (LUS) do you need?	• Prepare a Strategic Land use Framework which will include the following: • Strategic issues identified in the IDP and its SDF. • Identify pressure points (areas needing urgent attention). • Identify the LUS level for various parts of the municipality (Elementary, primary, comprehensive or rural level). • Decide on the type of Land Use Scheme you prefer by doing either or a combination of the following: • Translate the existing zones into a LUS without a review or consolidation. • Partially translate, consolidate or align different schemes and extend such schemes to areas where there is no land use management. • Undertake a detailed review of zones, land uses and controls in all current schemes with a view to creating a single scheme.	An agreement on the type of a Land Use Scheme that the Municipality wishes to prepare.

STEPS	ACTIONS	OUTCOME
4. How to prepare a Land Use Scheme?	• Council resolves to prepare a LUS in accordance with a new LUMS using appropriate legislation (once available). • Address information gaps (if necessary). • Formulation of the Statement of Intent (SOI) for large or special areas of the LUS based on the objectives of the municipal IDP. • Identify the zones, districts and appropriate development control.	A Municipal Land use Scheme comprising of a Plan, a Land Use Table (Matrix) and a table of development control (Land Use Template)
5. What is the Road to Approval of the LUMS?	• Circulate the LUS for public comments and relevant government departments within a legislated time period. • Amend the LUS by incorporating the received public comments. • Table the LUS (reports and maps) to Council and Amakhosi (where applicable) or a structure comprising of the two for final approval. • Submission to DTLGA for comments and or assessment.	An approved Land Use Scheme to guide land use management within a municipal area.

Reference: Sectoral guidelines for the Review of Integrated Development Plans in KwaZulu-Natal.

4.5 General Guidelines for all levels of Schemes

- Alignment with the Provincial Growth and Development Strategy.
- Alignment with Spatial Development Framework of the District.
- Alignment with the Spatial Development Framework, Vision and relevant Strategies as set out in the Local and District Municipality's IDP.
- Appropriate land for land reform needs to be identified. Further, Local Municipalities need to keep in mind the number of land claims that may have been laid against certain properties within their areas of jurisdiction, which their Land Use Management Systems will have to accommodate.
- **A review of schemes on regular basis is requirement and this report will assist Local Municipalities in the review process.**

4.6 Primary Objectives of Land Use Management Systems (LUMS)

- To provide a single LUMS applicable to municipalities throughout KwaZulu-Natal;
- To provide a comprehensive LUMS from which municipalities may draw upon a range of mechanisms to manage the use and development of land within their areas;
- To comply with the principles contained with in the White Paper on Spatial Planning and Land Use Management relating to:
  - Sustainability;
  - Equality;
  - Efficiency;
  - Integration; and

- Fair and good governance.

- To link land use and environmental management with development planning.
- To provide mechanisms to:
  - accommodate desirable land uses;
  - provide a framework to resolve conflict between different land uses;
  - promote certainty of land uses;
  - promote efficient use of land;
  - promote efficient movement of persons and goods;
  - promote economic activity;
  - protect the amenity of adjacent land uses;
  - protect natural resources including agricultural resources;
  - protect cultural resources and give consideration to the diversity Of communities;
  - protect unique areas and features;
  - manage land generally, including change of land use.

(Reference: KwaZulu-Natal Land Use Management System Guideline Manual).

4.7 Background Information that would inform the level and type of scheme to be determined:

- Level of involvement that the Local Council is capable of.
- Level of support at District and Provincial level.
- Population densities.
- Servicing possibilities.
- Existing road network and levels of activity along these routes. Linkages and accessibility are very important to the level of scheme proposed.
- Level of information available:
  - Arial photographs
  - Cadastral
  - Land Use information
  - Tenure example tribal authority versus private ownership
  - Environmental
  - Areas of cultural/historical significance

4.8 Urban Component of a Scheme, Activity Corridors

- The LUMS Guide advocates the determining of urban boundaries and that the levels of schemes within the determined urban boundaries would be Comprehensive, Comprehensive/Primary, Primary and Elementary with the idea that an elementary scheme can evolve to become a Primary Scheme.

- The concept of “activity corridors” along routes is evident in many Spatial Frameworks for example tourism routes like the Midlands Meander and those corridors that link closely located urban settlements. These corridors would require a higher level of scheme in order to effectively promote the desired from of development.

4.9 Comprehensive Scheme Guidelines

- The areas where a comprehensive scheme is appropriate are formal urban areas (larger towns and cities) where cadastral information is available and can be captured and updated on a regular basis.
- There is a need to define a boundary to the areas that are intended for urban purposes to prevent urban sprawl. Certain agricultural/smallholding areas lying adjacent to the urban areas are often included as are certain environmentally sensitive areas in order to control what occurs in these areas.
- Legislation in terms of which the area is managed is of a formal manner i.e. legal framework, formal cadastral and controlled by the municipality.
- More intensive uses are provided for, transport and access are defined and controlled, and reticulated sewerage/sophisticated services are advocated. These areas support large threshold populations.

4.10 Primary Scheme Guidelines

- Small town/settlements where a greater level of land use management is required would be best controlled in terms of a Primary Scheme. Also covered are the activity corridors and other areas where certain development is to be promoted but needs to be strictly controlled.
- A limited number of zones and districts are usually proposed.
- Density is formally controlled.
- Environmentally sensitive areas often occur and controls will aim to take these into account.
- Servicing is of a formal nature or moving towards formalisation.

4.11Elementary Scheme Guidelines

- These are un-proclaimed towns, emerging settlements where imprecise cadastral information exists.
- A low level of infrastructure is available, and access is mainly informal.
- Areas for social and economic uses need to be identified as well as a proposed road network.
- Environmentally sensitive areas often occur and controls will aim to take these into account.

CHAPTER 5
GUIDELINES FOR A RURAL SCHEME POLICY

5. GUIDELINES FOR A RURAL SCHEME POLICY

5.1 PURPOSE

The purpose of a Rural Scheme is to identify suitable zones for the management of rural land in a municipal area based upon the principles of the LUMS guidelines manual and to put forward a management system that can be applied by the Local Municipality to areas which were formerly outside of the urban areas currently covered by the Town Planning Schemes. The purpose of a Scheme in this context is to promote co-ordinated and harmonious development of a municipal area in such a way as will most effectively tend to promote health, safety, order, amenity, convenience and general welfare, as well as efficiency and economy in the process of development, and the improvement of communications. The purpose generally is to ensure that the principles of sustainability, efficiency and integration are achieved. In furtherance of this purpose the, a Municipality should try to achieve a pattern and distribution of land uses which would generally provide for the following:

- Accommodate desirable land uses.
- Provide a framework to resolve conflict between different land uses.
- Promote certainty of land use.
- Promote the efficient use of land.
- Promote the efficient movement of persons and goods.
- Promote economic activity.
- Promote the amenity of adjacent land uses.
- Protect natural resources, including prime agricultural resources.
- Protect cultural resources giving due consideration to the diversity of communities.
- Protect and enhance unique areas or features of environmental significance and biodiversity.
- Manage land generally, including change of land use and sub-division.
- Protect the environment and conservation of natural resources.

5.2 CONTEXT OF RURAL LAND-USE ZONING

A LUMS Scheme Policy sets out to explain the underlying purpose for and basis of the terminology used to describe land use zones in rural areas.

A Land Use Zone is a portion of land located within the Local Authority area in terms of which certain uses of land, buildings and structures are imposed and regulations pertaining to their use and development are specified.

Often people confuse a land use zone with the land use that may or may not be permitted therein. This confusion is compounded when either the same, or similar sounding names are used to describe both a zone and the land use permitted therein.

Bearing in mind that a Rural Scheme is a policy at this stage, the nature, extent and location of land use zones should be set out in the form of preferred and non-preferred uses.

In respect of areas shown as Conservation (Protected Land, Recreational or Nature Reserve) on the Policy Map, the prime consideration should be the protection of flora and fauna in these indigenous botanical communities and the protection of watercourses. No land use or development of any nature or extent should be undertaken, nor developed on any portion of these reservations or zones be permitted, until the proposed land use or development has been subject to proper assessment in terms of the Integrated Environmental Management (IEM) and EIA process as contemplated in terms of the Environmental Conservation Act (No. 73 of 1989) as amended or the National Environmental Management Act (No. 107 of 1998). Areas to include environmental sensitivity can be obtained from KZN Wildlife in the form of the C-Plan and Minset Data which provides detailed levels of environmental indicators and informants.

5.3 ENVIRONMENTAL INVENTORY

An Environmental Chapter stipulation environmental considerations need to be prepared by local municipalities. This will be the basis of the detailed SEA and EMP at local level. Integration of environmental issues needs to be incorporated in each and every zone proposed.

5.4 LAND USE / ZONE MATRIX

A land use / zone matrix depicting permitted uses, prohibited uses, uses that need special consent and uses that need a development permit in proposed zones should be prepared so as to guide Municipalities in decision making when it comes to development applications.

5.5 PUBLIC CONSULTATION

Meetings and workshops are a compulsory requisite in the formulation of a Rural LUMS. Workshops should be held with the Traditional Leaders, community members and other Interested and affected parties**.** This

process is especially important when workshopping the proposed preferred land uses. The intention of the public participation process is to get the community buy-in to the process; and a political leadership that has an adequate understanding of the process.

5.6 CONSIDERATION OF DEVELOPMENT APPLICATIONS

When the KwaZulu-Natal Land Use and Development Bill comes into effect (enacted), all land development applications in KwaZulu-Natal will be considered in terms of this Bill. Until such time, the following procedures are used for considering the development of land.

5.6.1 Tribal Authority Land

The KwaZulu Land Affairs Act No.11 of 1992 is used to consider development applications in tribal areas. Most residential and agricultural development on tribal land is undertaken in terms of customary law. Changes of land use from traditional residential or agriculture normally requires a development application to be made. The procedure is as follows:

i. A development proposal is considered by the Traditional Authorities and if necessary, the Regional Authority;
ii. An application is made to the Department of Traditional and Local Government Affairs in Pietermaritzburg for a Permission to Occupy in terms of the Act 11 of 1992;
iii. Large development applications may need to go to the Ingonyama Trust Board for consideration;
iv. A PTO, lease or other appropriate tenure option is then issued.

5.6.2 Non-tribal Areas

Development applications may be submitted in terms of the Town Planning Ordinance No.27 of 1949, to the Department of Traditional and Local Government Affairs in Pietermaritzburg.

i. Applications for the development of land for a layout or subdivision of ten or less units/sites, is made in terms of the section 11.2 of the Ordinance;
ii. Applications for the development of land for a layout or subdivision of ten or more units/sites is made in terms of section 11*bis* of the ordinance;
iii. Subdivision and town establishment applications are submitted in terms of section 12 and 33 of the Ordinance.

5.6.3 Development Facilitation Act

The Development Facilitation Act No.5 of 1967 may be used throughout KwaZulu-Natal and can be used for land development application requiring development approvals, establishment, tenure upgrade, and consideration of illegal development or registration arrangement. The DFA is a fast track mechanism for authorisation development. Applications are lodged with the Department of Traditional and local Government Affairs in Pietermaritzburg. (Refer to the DFA Manual for processes and procedures).

5.6.4 Less Formal Townships Establishment Act

This Act is used for the establishment of townships and residential development. Applications are lodged with the Department of Traditional and Local Government Affairs in Pietermaritzburg.

* (See Annexure 1)

5.6.4 Environmental Authorizations

The responsible bodies will grant environmental authorizations, and applications will be regarded as compliant only when such authorization has been received.

CHAPTER 6
LAND USE MANAGEMENT FRAMEWORK (SEE MAP 2)

6.1 Informants for the Sisonke Land Use Management Framework & Land Use Management Priority zones and types levels of schemes. The spatial development frameworks for all local Municipalities and for the Districts Municipalities has been used as a basis to inform the priority zones and where the different types and levels of schemes should be proposed.

Land Use Management Priority zones, has been defined to reflect the envisaged nature and intensity of the required land use planning and management response to be detailed in the Local Municipalities Land Use Management Systems. Key variables were identified across the district. These are the follows.

- Miset
- C. Plan
- Agricultural land potential
- Land Use Patters
- Sisonke SEA/EMP Priority Mapping
- Areas of anticipated high population growth

The proposed Land Use Management priority zones and level and type of schemes for urban areas (see table 6.1.1 & 6.1.2 below) support the Spatial Development frameworks at local levels and at the District level.

This provides a rudimentary framework to focus where potential LUMS conflicts are likely to exist or persist and as a result where detailed LUMS strategies to be required from the local Municipalities Land Use Management Systems.

6.1.1 PROPOSED LEVEL AND TYPES OF SCHEME – URBAN COMPONENT

COMPREHENSIVE SCHEME	PRIMARY SCHEME	ELEMENTARY SCHEME
Undeberg Himeville Creighton Ixopo Kokstad Matatiele Cerdaville Highflats Bulwer	Swartberg Donnybrooke Franklin Garden Castle Sani Pass Bushman Nek	New Amalfi Kinscote Mqatsheni Ntwasahlobo Jolivet Carrisbrooke Mahehle Ncwadi

The following four Land Use Management priority Zones in the remaining non-urban areas were identified

- **Environmental Priority Zone**

DEFINITION: A zone where land has been set aside to ensure the conservation and protection of ecosystem services and natural areas that are essential to the sustainable development of settlements.

It includes areas requiring preservation and conservation because they provide ecosystem services, or are unique natural landscapes, or viewpoints, or areas of ecological, historical or cultural importance, bio-diversity, and have unique habitats or species

It also includes areas that by virtue of their ecological or biological functions provide services that contribute to natural disaster management system

- **Agricultural Priority Zone**

DEFINITION: A zone is intended to provide land for buildings and uses associated farming practices and specifically with the following activities:

- The production food and fibre;
- The cultivation of livestock;
- The farming of livestock, poultry and bees,
- Horticulture and market gardening,
- Urban agriculture and settlement; and,
- The use of buildings for associated activities including education activities

- **Tourism Priority Zone**

DEFINITION: A zone to accommodate predominantly natural areas, which may have limited areas of modified ecosystems (not plantation) and are large enough to absorb sustainable resource use.

The relevant institutions in a partnerships will manage such areas jointly, with local communities

- **Settlement Zone**

DEFINITION: A zone for the development and management of land under the administration of the Tribal and local Authorities and which is primarily for housing, or residential usage including traditional homesteads and Umuzi's, and includes inter alia limited cropping and ad hoc grazing in a sustainable manner.

6.1.2 LUMS FRAMEWORK – POTENTIAL PREFERRED USES AND BUILDINGS IN REMAINING AREAS

Proposed zone	Environmental Priority Zone	Agricultural Priority Zone	Tourism Priority Zone	Settlement Zone
Potential preferred uses and buildings	➢ Game Ranching ➢ Formal Conservation ➢ Amenity Area ➢ Special landscape ➢ Major game Reserve ➢ Eco-tourism ➢ Conservancies ➢ Biosphere	➢ Extensive agriculture ➢ Tourism ➢ Subsistence agriculture ➢ Education ➢ Extensive livestock ➢ Cropping ➢ Horticulture ➢ Forestry ➢ Agro-forestry ➢ Fishing ➢ Traditional agriculture / scattered residential ➢ Special landscape ➢ Conservancies ➢ Amenity area ➢ Bed and Breakfast ➢ Bird Sanctuary ➢ Customary Harvesting ➢ Farm Stall	➢ Extensive agriculture ➢ Low Density Tourism ➢ Game Ranching ➢ Conservancies ➢ Buffer areas for formal conservation ➢ Eco-tourism ➢ Environmental education ➢ Recreation ➢ Biosphere reserve ➢ Farm Stall ➢ Customary Harvesting ➢ Bed and Breakfast Establishment ➢ Amenity Planting ➢ Bird Sancuary	➢ Intensive Livestock ➢ Cropping ➢ Aquaculture / Fishing ➢ Medium Density residential development ➢ Extensive livestock ➢ Cropping ➢ Irrigated cropping ➢ Horticulture ➢ Traditional agriculture/scattered residential ➢ Special landscapes ➢ Conservancies ➢ Amenity Area ➢ Bed and Breakfast ➢ Eco and normal tourism ➢ Harvesting ➢ Intensive or Semi Intensive Human Settlement Recreation ➢ Environmental education Cropping (dry land and irrigated) ➢ Agro industry ➢ Business / Commercial ➢ Farm Stall ➢ Customary Harvesting ➢ Intensive or Semi Intensive human Settlement

NB: Development concessions are subject to approval by relevant government departments.

CHAPTER 7
GUIDELINES FOR LUMS PUBLIC PARTICIPATION PLAN

Public Participation in community development initiatives is not only a legislative requirement, but also an important component of such an initiative. Through Public Participation the municipality is enabled to receive all the views of its residents as well as buy-in and ownership of the initiative by the community at large. Public Participation is regarded as a tool for understanding local area dynamics and requirements as well as strengths, weaknesses, opportunities, and threats, which is important in the formulation of strategies for planning purposes.

It is recommended that Public consultation takes place throughout the LUMS process and that communities should be engaged at the early stages. Given the complexity of the municipality, with semi-urban and rural components (Tribal Authority areas), it is suggested that a series of meetings/workshops be held.

It is important to involve ward committees to enhance public participation as this would promote bottom up approach in planning. Councillors are also major role players in terms of information dissemination to ward committees and to actively participate in the Project Steering Committees to promote Public Participation. The existing Resource Conservation Committee from the Department of Agriculture in the District could actively play a role in information dissemination and therefore enhance Public Participation. LUMS concept should also be presented at Regional Authority Level to get the buy-in from Traditional Leadership. To promote participation especially in Traditional Authorities, training is needed so as to actively involve Traditional Authority Leaders and Communities in the LUMS process and to ensure that people understand the concept and importance of LUMS.

The objective is to establish competent structure to implement the project, through a sound understanding of the LUMS process and developmental processes.

7.1 PROJECT STEERING COMMITTEE (PSC)

On commencement of the LUMS project a detailed Inception Report/Workplan with target dates and milestones should be prepared. This report should include suggestions regarding the formation of a consultative structure such as a Project Steering Committee (PSC) (if not yet established).

The report guides both the planning and participation processes. The Inception Report should be presented to the Project Steering Committee (PSC) for its approval.

As the Project Steering Committee's primary purpose is "to provide a platform for the engagement between the local Municipality and groups or individuals in civil society to discuss and resolve land use management issues of mutual concern". The LUMS Project Steering Committee should act as the primary communication channel linking to the Council, and ensuring that the recommendations and concerns are brought to Council's attention and acted upon where appropriate.

7.2 PARTICIPATION IN URBAN AREAS

- A *Project Steering Committee* meeting should be undertaken to include presentation and discussion of the proposed delineation of the urban Planning Areas.

- *Stakeholders/Public* meetings/workshops should be undertaken involving the presentation and discussion of the proposed delineation of the urban Planning Areas.

- A *Project Steering Committee* meeting should be undertaken which will involve the workshopping of the Draft Planning Scheme Maps with associated Draft Clauses. This would include the explanation of the proposed zonings, land use types, and the building and sub-divisional controls.

- *Stakeholders/Public* meetings/workshops should be undertaken which will involve the workshopping of Draft LUMS Proposals, as well as the PSC's input.

7.3 PARTICIPATION IN TRADITIONAL AUTHORITY / AGRICULTURAL AREAS

- A *Project Steering Committee* meeting should be undertaken with Traditional leaders and should involve the workshopping of the proposed land uses for the different areas.

- *Stakeholders/Public* meetings/workshops should be undertaken to involve the workshopping of the proposed land uses for the different areas.

- A *Project Steering Committee* meeting should be undertaken with Traditional leaders and should involve the workshopping of Draft LUMS Proposals.

- *Stakeholders/Public* meetings/workshops should be undertaken which will involve the workshopping of Draft LUMS Proposals, as well as the PSC's and Traditional leaders input.

CHAPTER 8
GUIDELINES FOR ALIGNMENT

While each local municipality is responsible for preparing its own Land Use Management System, each system will impact on (and be impacted by) the systems of neighbouring municipalities. When formulating a LUMS each municipality should therefore consult with all of its neighbouring municipalities. It is recommended that this consultation comprise the following:

- During the LUMS project "data collection phase" each municipality should obtain copies of the applicable Planning Schemes/Policies (whether adopted or in draft format) of adjacent municipalities, in order to inform the formulation of their own Schemes and Policies.
- Throughout the LUMS project consultation process representatives of both the District Municipality and neighbouring Local Municipalities should be invited to sit on the Local Municipality's LUMS Steering Committee.
- Once the LUMS Planning Schemes/Policies have been adopted, the municipality should inform the adjacent municipalities of their adoption and availability for inspection.

It is further recommended that the District Municipality play an ongoing co-ordination/facilitation role in regard to the LUMS process, by hosting an annual LUMS alignment workshop. The purpose of such a workshop would be to discuss, *inter alia*, progress with respect to the establishment and implementation of LUMS in each Local Municipality; the current legislative framework; and common land use management issues. The alignment workshop would also provide an opportunity to consult with neighbouring districts with respect to the systems being formulated/implemented in Local Municipalities within such districts.

Provincial Department of Traditional and Local Government Affairs is responsible to ensure alignment and the District plays a facilitation role. The District needs to play a Coordination role in the with regards to the DMA/World Heritage Site there is an existing management structure of Ezemvelo KZNWildlife. A memorandum of agreement in terms of the management of the DMA needs to be developed by the both parties to ensure effective and efficient running of the area in a sustainable way.

The model of LUMS in Traditional Authority Areas as developed by the Department of Traditional and Local government Affairs needs to be adopted at local level when preparing the LUMS.

Relevant government departments need to develop strategies on issues that have an impact on spatial planning.

CHAPTER 9
GUIDELINES FOR IMPLEMENTATION

In the existing legislative context, implementation of the LUMS will depend upon a) which "land use management" laws are currently applicable to various areas within the municipal area and b) the law/s in terms of which the individual Planning Schemes/Policies comprising the LUMS are adopted. The LUMS Planning Scheme Clauses/Policies must, of course, detail the procedures to be followed with respect to the implementation of a particular Planning Scheme/Policy.

When establishing a LUMS, a Local Municipality will accordingly need to a) undertake a comprehensive analysis of the "land use management" laws which are currently applicable and b) then determine which is the most appropriate law to use in order to adopt a particular Planning Scheme/Policy. This complex state of affairs will unfortunately prevail until such time as either a new National or Provincial Land Use Management Law comes into operation. For information, the key laws to take into consideration are the following:

- Town Planning Ordinance, No. 27 of 1949;
- Development Facilitation Act, No. 67 of 1995;
- Less Formal Townships Establishment Act, No. 113 of 1991;
- KwaZulu Land Affairs Act, No. 11 of 1992;
- Township Development Regulations for Towns No. 1886 of 1990 (Black Administration Act, No. 38 of 1927);
- Land Use and Planning Regulations No. 1888 of 1990 (Black Administration Act, No. 38 of 1927); and
- Township Establishment and Land Use Regulations GNR 1897 of 1986.

It is noted that the Chief Directorate: Development Planning (Development Administration Services) of the DTLGA is in the process of drafting a "Profile" detailing the services offered by Development Administration Services. This document provides an overview of the abovementioned laws and details the application procedures to be followed with respect to each. This document will be of assistance to municipalities when formulating procedures to be followed in terms of the new LUMS Planning Schemes/Policies.

CHAPTER 10
THE WAY FORWARD

10. THE WAY FORWARD - HOW SHOULD MUNICIPALITIES RESPOND TO THE CHALLENGE OF LAND USE MANAGEMENT?

In the formulation of the District and Local Municipalities Land Use Management Framework, a municipality will as a first step to preparing its LUMS have to formulate a Spatial Development Framework for its area of jurisdiction. Factors that need to be addressed in the SDF would be an analysis of the municipality's spatial patterns, encompassing an economic, social and physical analysis of key issues. An alignment with neighbouring and the district municipalities of the major proposed spatial patterns is also imperative. A Strategic Environmental Assessment which is also a key informant to the LUMS process especially in relation to Rural Land Use Management is recommended as the next step. Prior to the formulation of both Urban and Rural LUMS a Spatial Land Use Framework needs to be prepared which sets out which areas within a municipality need to be inco-orperated into an urban scheme or rural scheme and the level of shemes to be implemented namely a comprehensive planning scheme, a primary planning scheme or an elementary scheme. The steps outlined above will serve as a basis for the development of a dynamic and flexible Land Use Management System which should pave the road to more efficient, safe and orderly environments. The ultimate aim of promoting the formulation of land management systems is to achieve the directives outlined in the IDP's which will benefit both urban and rural communities alike.

GLOSSARY

GENERAL DEFINITIONS AND TYPES OF LAND USE

GENERAL DEFINTIONS:

AMENITY

Means a natural or created feature or aspect that enhances a particular property, place or area from the perspective of its aesthetic quality, visual appeal, or makes it more attractive or satisfying.

BIO-DIVERSITY

Means the rich variety of plants and animals that live in their own environment.

BIOSPHERE

Means an internationally designated area created to integrate the natural environment and surrounding communities, by the conservation and protection of the bio-diversity and integrity of biotic communities, plants and animals within their natural ecosystems and to demonstrate the value for conservation.

BUILT ENVIRONMENT

Means the physical surroundings created by human activity.

BYLAW

Means the bylaws or regulations the Responsible Authority in force in the area of a Planning Scheme.

CATCHMENT

Means the area from which any rainfall will drain into the watercourse or part thereof through surface flow to a common point or common point or common points.

CONSERVANCY

Means a group of individual farms or similar contiguous land parcels which through their owners' initiative are combined together for the protection and preservation of the natural bio-diversity of ecosystems in that area

CONSERVATION

Means protecting, saving and using resources wisely, especially the bio-diversity found in the area.

COMMISSION

Means the Planning and Development Commission established in terms of section 4(1)(a) of the KwaZulu-Natal Planning and Development Act, 1998) (Act No.5 of 1998) and the Town and Regional Planning Commission established under the Town Planning Ordinance No 27 of 1949..

DEVELOP LAND/DEVELOPMENT

Means to erect a building or structure on any land or to alter or extend any buildings or structure or to create a lay out for, or adapt such land for any use or purpose.

DEVELOPMENT TRIBUNAL

Means the Development Tribunal for the Province established under section 15 of the Development Facilitation Act, 1995 (Act No.67 of 1995).

ECOSYSTEM

Means the surroundings within which humans exist and includes: -

the land, water and atmosphere of the earth;
micro organism, plant and animal life;
any part or combination of (1) and (2) and the interrelations amongst and between them; and, the physical, chemical, aesthetic and cultural properties and conditions of the afore going that influences human health and well being.

ENVIRONMENTAL IMPACT

Means a positive or negative environmental change caused by a human act.

ENVIRONMENTAL MANAGEMENT

Means the use of land for the conservation of natural resources and the assets associated with these areas; for low intensity nature based tourism; for maintaining bio-diversity and sustainable catchment management.

ENVIRONMENTAL MANAGEMENT PLAN

Means a plan referred to in section 11 (xx) of the National Environmental Management Act (Act No, 107 of 1998).

ENVIRONMENTAL IMPLEMENTATION PLAN

Means a plan referred to in section 11 (xxii) of the National Environmental Management Act (Act No, 107 of 1998).

KWAZULU LAND AFFAIRS ACT

The Act was promulgated for the former KwaZulu areas and is still applicable.

LAND USE ZONE

Means an area shown on Rural LUMS Land Use Map by distinctive colouring or edging or in some other distinctive manner, for the purpose of indicating the restrictions imposed by a scheme on the erection and use of buildings or structures, or the use of land. A land use zone conveys certain development preferences applicable to that zone.

NATURAL ENVIRONMENT

Means our physical surroundings, including plants and animals when they are unspoiled by human activities.

NATURAL FEATURES

Includes topographical, drainage, vegetation, and faunal features, such as different landforms, rivers and streams, waterfalls and pools, rarer plants, and unusual fauna.

ORDINANCE

Means the Natal Town Planning Ordinance, 1949 (Ordinance No.27 of 1949) as amended.

PLANNING SCHEME

Means the land use component of a Development Plan.

RESPONSIBILTY AUTHORITY

Means the relevant body or person required, in terms of the KwaZulu-Natal Planning and Development Act, 1998 (Act No.5 of 1998), as amended: -

under Section 23, to prepare or administer a development plan;
under Section 34, to consider a development application;
under Section 39, to consider a sub-divisional application.

STATE LAND

Means land that is vested in national or provincial government, but excludes
land belonging to a Municipality.

SUB-DIVISION

Means a portion of land under one ownership that has been legally subdivided or consolidated and is shown as a single lot on the latest valuation roll. (The formal subdivision of an existing cadastrally defined unit into two or more subdivisions through the Surveyor-General with the intention of transferring such subdivisions to other parties).

TRIBAL AUTHORITY

A tribal authority or a community authority established in terms of the Amakhosi and isiPhakanyiswa Act, 1990 (Act No. 67 of 1995).

TRIBUNAL REGISTRAR

The Development Tribunal registrar referred to in section 15(9) of the Development Facilitation Act, 1995 (Act No. 67 of 1995).

WETLANDS

Means land which is transitional between terrestrial and aquatic systems where the water table is usually at or near the surface, or the land is periodically covered with shallow water, and which land in normal circumstances supports, or would support, vegetation, birdlife, etc. typically adapted to life in saturated soil.

DEFINTIONS OF LAND USE/ACTIVITY

ADMINISTRATIVE/COMMUNITY

Means the use of land for administrative, community or other institutional Purposes.

AGRI-INDUSTRY

Means a commercial activity supporting or complementing agricultural activities including concentrated plant or animal production units, or related to processing or beneficiation of agricultural products.

Included are operations that supply agricultural tools and machinery and agricultural requirements such as fertiliser and stock feeds; commercial mechanical or engineering workshops; plant nurseries and production tunnels or other such structures, processing of dairy products or saw milling of timber, abattoirs, cattle feedlots, chicken batteries and piggeries and the wastes or by-products from such activities. Excluded from the definition are any of the above activities which are carried for purely “own use” or non-commercial purposes. Also excluded are facilities for handling livestock for purposes of dipping, spraying, counting or shearing, or for basic cleaning and packaging of crops such as potatoes.

AMENITY AREA

Means land reserved for the protection of places of scenic beauty, natural vegetation, rivers and other topographical features, fauna and flora, places of historical interest and the like, but which may with the permission of the owner be used by the public for passive recreation.

COMMERCIAL AFFORESTATION

Production of timber in plantations, greater than 10ha in extent, for commercial purposes.

CROPPING

Means the use of land for producing edible or saleable plants.

EDUCATION

Means the use of land for educational, or directly related purposes.

ENVIRONMENTAL EDUCATION

Means the use of land for teaching environmental understanding and awareness.

EXTENSIVE AGRICULTURE

Means agriculture involving the use of the natural vegetation without any attempt to increase its yield above that of the original condition, and/or the cultivation of up to 20ha of land for crops or pastures.

This refers primarily to the grazing of livestock on natural veld but does allow for a limited amount of crop or pasture production. Included is the use of facilities such as dips, spray races, and holding kraals.

FORESTRY

Means the use of land for exotic or indigenous timber production.

HORTICULTURE

Means the use of land for the production of flowers, fruit or vegetables.

INDUSTRIAL DEVELOPMENT

Means developments or industries, as identified in Section 21 of the Environmental Conservation Act (Act 73 of 1989), which are not allied with local tourism or agricultural activities.

Such developments will usually be based on some manufacturing or product processing activity, but are not linked to any tourism product or activity and neither use nor produce any agricultural product.

INTENSIVE AGRICULTURE

Means a farming system involving high yields of crops or livestock products by means of replacing or enhancing the natural agricultural resource base.

Such activity is likely to impact significantly upon the local bio-diversity and scenic resources and consists primarily of production of monospecific crops such as maize or vegetables on areas which exceed 20ha in extent, or the grazing of livestock on improved pastures. Included are operations involving irrigation of crops or pasture and use may be of large machines such as combine harvesters and centre-pivot irrigation systems.

INTENSIVE OR SEMI-INTENSIVE HUMAN SETTLEMENT

Means settlements which are either greater than that needed for the agricultural or other activity on the property, or which are conventional residential developments.

Such settlements may or may not be formally defined and recognised but which are at a level requiring development of some communal infrastructure and which are almost totally dependent on food brought in from other areas. At greater densities they are tending toward urban development.

LARGE SCALE TOURISM DEVELOPMENT

Means the development of large-scale tourism infrastructure such as large hotels, theme parks, cultural and heritage centres, camping and caravan facilities, timeshare or other such developments, and casinos.

NATURE AND RESOURCE CONSERVATION

Means the long term management, including the associated environmental education opportunities, of natural resources such as bio-diversity resources and sites of social, cultural, spiritual, archeological, palaeontological, geological or scenic value, in order to ensure their continued existence in an acceptable condition, whether or not utilisation, active or passive, is taking place.

NATURE AND CULTURE BASED TOURISM

Means outdoor recreation and participatory travel experience, to both natural as well as to cultural environments, that contribute to the sustainable use of these environments, respect the integrity of the host communities, and which produce economic opportunities that contribute to the long term conservation of the resource base and reinforce the concept that conservation can bring meaningful benefits.

This form of ecotourism is implemented at a low key and does not necessarily require the provision of accommodation or other built infrastructure.

SCATTERED RESIDENTIAL AND SMALL SETTLEMENTS

Residential use of tribal, private or communally-owned land which includes limited cropping and ad hoc grazing; or settled countryside.

SMALL-SCALE AGRICULTURE

Means agricultural uses on small areas of land less than (20ha in extent) or production of crops, usually for human or livestock consumption purposes, in small lands on a larger property. Excluded are numbers of adjacent small fields (lands) which are operated by individuals or families on communal land.

SMALL-SCALE TOURISM DEVELOPMENT

Means development of tourism facilities such as bed-and-breakfasts, small-scale chalet complexes and small hotels, camping and caravan facilities, and cottage industries and art and craft outlets. Overnight visitor numbers on any one property shall not exceed one person per two hectares and shall not exceed 60 such visitors per property.

SPECIAL LANDSCAPES

Means landscapes that are important for their natural beauty or vistas or cultural, historical or geological features.

SPECIAL NATURE RESERVES

Means an area declared as a Special Nature Reserve under section 18 of the Environment Conservation Act (Act No. 73 of 1989).

SUBSISTENCE AGRICULTURE

The use of land for agricultural purposes mainly for own use.

REFERENCES:

1. KZ 5a3 - Matatiele Municipality IDP
2. KZ 5a2 – Greater Kokstad Municipality IDP
3. KZ 5a3 - Kwasani Municipality IDP
4. KZ 5a1 - Ingwe Municipality IDP
5. KZ 5a5 – Ubuhlebezwe Municipality IDP
6. DC 43 – SISONKE District Municipality IDP
7. KwaZulu-Natal Land Use Management System Guideline Manual, Town & Regional Planning Commission
8. Sectoral guidelines for the Review of Integrated Development Plans in KwaZulu-Natal, DTLGA
9. Provincial Growth and Development Strategy
10. KZNDM 43 Socio-Economic Survey
11. Special Case Area Plan
12. Sisonke District Municipality SEA/EMP 2004
13. Indlovu regional Development Plan, Scott Wilson, February 1998
14. Draft Spatial Planning Guidelines, DTLGA, August 2004
15. Draft checklist for Spatial Development Frameworks, DTLGA, Spatial Component, May 2004

ANNEXURE 1

RURAL LUMS: PROCEDURES AND PROCESSES FOR CONSIDERING DEVELOPMENT APPLICATIONS

1. POTENTIAL DEVELOPMENT APPLICATIONS

SECTION OF ACT/ORDINANCE	TYPE OF APPLICATION	*APPLICATION PROCEDURES AND PROCESS
TOWN PLANNING ORDINANCE, NO.27 OF 1949 (AS AMENDED): APPLICABLE TO FORMER NATAL AREAS		
SECTION 11(2)	DEVELOPMENT OF LAND	SEE LUMS MANUAL
SECTION 11 bis	NEED AND DESIRABILITY	SEE LUMS MANUAL
FULL/SECTION 33 PROVISIONS OF III	SUBDIVISION (INCLUDING FULL TOWNSHIP ESTABLISHMENT)	SEE LUMS MANUAL
SECTION 47 bis	ADOPTION, EXTENSION, RESCINDMENT OR AMENDMENT OF PLANNING SCHEME	SEE LUMS MANUAL
SECTION 47 bis	REZONING OF LAND	SEE LUMS MANUAL
SECTION 67 (1) (a)(b) or (c)	*****BUILDING PLANS; DEVELOP OR USE LAND (IN AN AREA IN WHICH A RESOLUTION TO PREPARE A SCHEME HAS TAKEN EFFECT)	SEE LUMS MANUAL
SECTION 67 (1)(d)	SUBDIVIDE LAND (IN AN AREA IN WHICH A RESOLUTION TO PREPARE A SCHEME HAS TAKEN EFFECT)	SEE LUMS MANUAL
SECTION 67 bis	SPECIAL CONSENT (IN AN AREA IN WHICH A RESOLUTION TO PREPARE A SCHEME HAS TAKEN EFFECT)	SEE LUMS MANUAL
KWAZULU LAND AFFAIRS ACT, NO. 11 OF 1992: APPLICABLE TO FORMER KWAZULU AREAS/INGONYAMA TRUST AREAS		
*(Deals with occupancy)	*PERMISSION TO OCCUPY	SEE LUMS MANUAL
*(Deals with tenancy)	*LEASE AGREEMENT	SEE LUMS MANUAL
SECTION 14(11)	DEVELOPMENT OF LAND	SEE LUMS MANUAL

DEVELOPMENT FACILITATION ACT, NO.67 OF 1995: APPLICABLE TO WHOLE OF KWAZULU-NATAL		
SECTION 31 OF 49	LAND DEVELOPMENT AREA	SEE DFA MANUAL
SECTION 31 OR 49(JOINT APPLICATION	LAND DEVELOPMENT AREA AND REGISTRATION ARRANGEMENT	SEE DFA MANUAL
SECTION 61	LAND REGISTRATION ARRANGEMENT	SEE DFA MANUAL
SECCTION 30 OR 48	EXEMPTION	SEE DFA MANUAL
SECTION 42	INVESTIGATION OF A NON-STATUTORY LAND DEVELOPMENT	SEE DFA MANUAL
REGULATION 28	COMPEL AN AUTHORITY ON PROCEED WITH THE APPLICATION	SEE DFA MANUAL

* ENVIRONMENTAL APPLICATIONS

2. DATA SOURCES

- KWAZULU-NATAL LAND USE AND DEVELOPMENT BILL, 2003 (AUGUST 2003)
- LUMS GUIDELINE MANUAL
- ECOTOURISM REPORT
- DEVELOPMENT APPLICATIONS

ANNEXURE 2

Planning for the Conservation and Development of Biodiversity in KwaZulu-Natal: Guideline to the use of planning outputs (Incomplete Draft)

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Introduction

South Africa has ratified the International Convention on Biological Diversity, which commits the country, including KwaZulu-Natal, to develop and implement a strategy for the conservation, sustainable use and equitable sharing of the benefits of biodiversity. In terms of the Constitution of South Africa, KwaZulu-Natal has responsibility for the function of nature conservation in the province, except for national parks, marine resources and national botanical gardens, and concurrent responsibility for the environment.

The Biodiversity Bill also requires Provincial Authorities together with the Department of Environment and Tourism, to compile and implement a 'Bioregional Plan' for the province that ensures that a minimum area of each bioregion with all its representative ecosystems is protected. The results of such a planning process have both strategic planning value as well as reactive value in the event of a change in land use being proposed. Thus, the opportunity arises to have a significant input into the environmental component of the Municipal Integrated Development Plans, and via this mechanism make a meaningful and positive contribution to environmentally sensitive development in the province.

The question is, how can this be achieved? In order to address these requirements in a logical manner, KZN Wildlife in collaboration with the Development Bank of Southern Africa and the KZN Town and Regional Planning Commission have collaborated on a project, which aimed to develop a systematic but flexible decision-framework for the conservation of the province's biodiversity. The project is entitled the 'Systematic Conservation Plan and Decision-Framework for KwaZulu-Natal' and aimed to:

- Determine acceptable goals and targets for the conservation of the Province's biodiversity.
- Identify critical areas of the province that require protection in order to achieve these goals.
- Incorporate these results into a systematic but flexible decision framework suitable for inclusion into the Integrated Development Plans required by local authorities.

The Systematic Conservation Planning Project has followed the systematic conservation planning framework developed and published by Margules and Pressey (2000). The basic steps in this process are:

- Compile data on biodiversity of the planning region.
- Identify conservation goals for the planning region.
- Review effectiveness of existing protected areas in achieving the conservation goals.
- Identify additional areas that require protection in order to achieve the conservation goals.
- Identify the threats to these areas.
- Identify and implement conservation actions to secure the biodiversity or processes associated with identified sites.
- Manage to maintain the required values of all areas identified as being important for the conservation of biodiversity.

As with all planning, this is not a single linear planning process ending in a single static product, but a dynamic iterative one which responds to changes in land use and our level of understanding of the status and distribution of the biodiversity assets of the province. Each iteration of the planning process improves and refines the recommendations and associated actions and development opportunities. As such, the project relies heavily on GIS technology and a large and developing database on the distribution and status of biodiversity in this province.

The primary purpose of this guideline document is to make potential users aware of the products and outputs of this project, their availability and most importantly their interpretation and use for planning purposes.

Data sources

The primary sources of data used in the analysis and their versions are as follows:

Terrestrial system

- National Land Cover 2000 (ver.1.2) edited for errors known to occur in provincial protected areas (January 2004).
- Provincial and national protected areas of the province (E KZN Wildlife).
- National Vegetation Map (December 2003) refer the National Botanical Institute.
- Forests of KZN (December 2003) (E KZN Wildlife).
- Wetlands of KZN (January 2004) (E KZN Wildlife).
- Biophysical data from Schulze, R.E. (1997). South African Atlas of Agrohydrology and Climatology. Water Research Commission, Pretoria.
- Species distributions from Ezemvelo KZN Wildlife's Biodiversity database and supplemented by species specialist group records and inputs (E KZN Wildlife).

Aquatic systems

- National Land Cover 2000 (ver.1.2) edited for errors known to occur in provincial protected areas (January 2004).
- Provincial and national protected areas of the province (E KZN Wildlife).
- Estuaries of KZN (July 2003) (E KZN Wildlife).
- River Ecological Groups of KZN (November 2002) (E KZN Wildlife).
- Wetlands of KZN (January 2004) (E KZN Wildlife).
- Biophysical data from Schulze, R.E. (1997). South African Atlas of Agrohydrology and Climatology. Water Research Commission, Pretoria.

- Species distributions from Ezemvelo KZN Wildlife's Biodiversity database and supplemented by species specialist group records and inputs (E KZN Wildlife).

Electronic copies of the map layers with documentation are available from the relevant distributing body or from the Data Manager Ezemvelo KZN Wildlife on request (e-mail address).

Project outputs and interpretation

Broadly speaking, analysis of current data has highlighted the following:
- By IUCN standards biodiversity in this province is poorly protected.
- The present network of protected areas does not adequately conserve all levels of biodiversity in the province.
- Many components of biodiversity are under severe threat from transformation of natural habitats, unsustainable use, invasive organisms, pollution, and poorly planned development.

Specific products comprise:
- Biodiversity conservation targets for KwaZulu-Natal
- Terrestrial system planning products including the irreplaceability analysis, minimum set analysis and endangered ecosystems maps for the province.
- Aquatic systems planning products including irreplaceability and minimum set analyses for estuarine, riverine and wetland systems for the province.

Biodiversity conservation targets

At the core of the systematic conservation planning framework are clearly stated conservation targets or goals for biodiversity features. These features include all the major terrestrial and aquatic ecosystems and processes. In addition they cover a selected number of species which are either endemic to KwaZulu-Natal (i.e. their world wide distribution occurs exclusively within the borders of the province) or are nationally or internationally endangered and KwaZulu-Natal can make a significant contribution to their conservation. At the heart of each biodiversity features target is the desire to conserve a representative and viable sample of the feature. Biodiversity targets change as our understanding of the dynamics of the features changes. The latest version of KwaZulu-Natal's biodiversity target document can be viewed and downloaded here.

Aquatic planning products

To be completed

Terrestrial planning products
Irreplaceability analysis

The first product of the conservation planning analysis in C-Plan is an irreplaceability map of the planning area, in this case the province of KwaZulu-Natal. This map is divided into 2 by 2 km grid cells called 'planning units'. Each cell has associated with it an 'Irreplaceability Value' which is one reflection of the cells importance with respect to the conservation of biodiversity. Irreplaceability reflects the planning units ability to meet

set 'targets' for selected biodiversity 'features'. The irreplaceability value is scaled between 0 and 1.

Irreplaceability value – 0. Where a planning unit has an irreplaceability value of 0, all biodiversity features recorded here are conserved to the target amount, and there is unlikely to be a biodiversity concern with the development of the site.

Irreplaceability value – 1. These planning units are referred to as totally irreplaceable and the conservation of the features within them are critical to meet conservation targets. (EIA very definitely required and depending on the nature of the proposal unlikely to be granted).

Irreplaceability value > 0 but < 1. Some of these planning units are required to meet biodiversity conservation targets. If the value is high (e.g. 0.9) then most units are required (few options available for alternative choices). If the value is low, then many options are available for meeting the biodiversity targets. (EIA required and depending on the nature of the proposed development, permission could be granted).

Minimum set analysis

Minset is a function or tool within C-Plan (Conservation Planning Software) that is used to identify a 'minimum set' of sites (planning units) that would fulfil the aim firstly of achieving the conservation targets within a number of constraints that can be set by the user e.g. avoid highly productive agricultural land, or land adjacent to major highways. It presents the most efficient solution to achieving conservation targets and other land use constraints. The Minset output map shows areas that are already protected, 'Mandatory Reserves' and 'Negotiable Reserves'. Mandatory reserves are those areas that appear as totally irreplaceable on the irreplaceability map, since there are no other alternatives for achieving the conservation targets. Areas identified as negotiable reserves are the areas that the Minset function returns as the most efficient for achieving targets and constraints. However there are alternatives to achieving the targets and constraints but with less efficiency, and hence the designation of this area is still negotiable.

In using the results of the Minset analysis for impact assessment and incorporating recommended areas into regional and local plans, planners need to proceed with caution. While mandatory reserves (totally irreplaceable areas) must be incorporated to meet conservation targets, negotiable reserves need not. However with respect to the latter, if an area is rejected for incorporation into the conservation network, landscape planning cannot end there. For the planning cycle to be completed in this respect, the planner must identify and recommend the incorporation of alternative sites that will allow the targets for the affected biodiversity assets to be satisfied. This will involve the rerunning of the Minset analysis with the initially excluded site removed from the analysis, and is what makes C-Plan a truly interactive and iterative planning tool.

Combined Planning products
To be completed

E KZN Wildlife welcomes your comments and contributions to the refinement of this document. These may be e-mailed to pgoodman@kznwildlife.com

ANNEXURE 3

REVIEW OF RELEVANT INTERNATIONAL CONVENTIONS AND LOCAL LEGISLATION

INTERNATIONAL CONVENTIONS

There are three international conventions directed at conserving natural resources, and to which South Africa is a signatory:

- The Convention to Combat Desertification
- The Convention on Biological Diversity
- The Convention on Wetlands of International Importance, Especially as Waterfowl Habitat.

Convention on Biological Diversity, 1992

Sugarcane farming involves the removal of natural vegetation and the loss of natural habitat, which result in a general reduction in biodiversity. As South Africa is a signatory to the Biodiversity Convention, sugarcane growers should aim to reduce and mitigate the impact they have on biodiversity.

The MSAR Convention

The general responsibility to promote the wise use of wetlands should be noted, as in many cases wetlands have been drained and planted over by sugarcane, throughout the history of the industry.

NATIONAL LEGISLATION

The Constitution Act, No. 108 of 1996

Every person has the right to an environment that is not harmful to his/her health or well-being, and to have the environment protected for the benefit of present and future generations. This will be achieved by reasonable legislation and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources, while promoting justifiable economic and social development.

Conservation of Agricultural Resources Act, No. 43 of 1983

This Act provides for the prescription of control measures that must be complied with by land users. (The Act is under review at present.) These

measures can be related to a variety of issues, and some key control measures that have been prescribed through regulations relating to farming are:

- Permission is required for the cultivation of virgin soil.
- Permission is required for the cultivation of land with more than 20% slope and, in certain cases, land with more than 12% slope. (This does not apply to land cultivated prior to the prescription of this control measure.)
- Every land user shall protect irrigated land from water and wind erosion through measures prescribed in the regulations.
- Every land user shall protect irrigated land from salination and waterlogging through measures prescribed in the regulations.
- No land user shall utilise the vegetation in a vlei, marsh or water sponge, or within the flood area of the watercourse, or within 10 m horizontally outside such flood area, in a manner that causes the deterioration of or damage to the natural agricultural resources.
- Every land user shall remove the vegetation in a watercourse to such an extent that it will not constitute an obstruction during a flood that could cause excessive soil loss.
- Permission is required to drain or cultivate any vlei, marsh or water sponge or to cultivate any land within the flood area of a watercourse or within 10 m horizontally outside the flood area of a watercourse. (This does not apply to land cultivated prior to the prescription of this control measure.)
- In 2001, the Act was amended and a schedule was published. This schedule listed three categories of plants, namely weeds, commercially propagated invaders and ornamental invaders. Full details of these lists, photographs of the plants concerned and control/eradication methods are available on the website: www. aqis. aqric.za/aqisweb/wip.

Soil Conservation Committees

Conservation Committees are appointed by the Minister, in every Magisterial District, to monitor compliance with the clauses of the Act.

Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, No. 38 of 1947

Fertilisers and agricultural remedies may not be sold unless they have been registered in terms of the Act, and the Minister may prohibit the acquisition, disposal, sale or use of certain fertilisers and agricultural remedies.

The National Environmental Management Act (NEMA), No. 107 of 1998

This Act is one of the most recent, and deals with farming and other activities that could have a long term detrimental effect on the environment.

- To promote integrated environmental management activities, the Act provides for the identification of activities that require authorisation before they may be undertaken. Prior to the authorisation of an activity, the potential impact of the activity on the environment, socio-economic conditions and cultural heritage must be assessed.
- The Act places a general obligation on persons responsible for significant pollution and environmental degradation to take all the necessary measures to prevent, minimise and rectify such pollution or degradation.
- The Act broadens the category of people or organisations who can take court action with regards to a breach of any section of the Act, including principles of the Act.
- The Act provides for any person to undertake private prosecutions in the public interest or in the interest of the protection of the environment in respect of a breach of any duty (other than public duties resting on the state) in any legislation (and Association's regulations) where the duty is concerned with the protection of the environment, and the breach of that duty is an offence.

Environment Conservation Act (ECA), No. 73 of 1989

The Act provides for the control of activities which may have a detrimental effect on the environment. In the past few years, two categories of the regulations that are relevant to sugarcane farming have been promulgated:

Environmental Impact Assessment (EIA) Regulations, Nos. R1182, R1183 and R1184, 5 September 1997

Some of the activities'identified as having a potentially detrimental effect on the environment are directly relevant to sugarcane farming:

- The construction or upgrading of:
  - Roads, outside the borders of town planning schemes
  - Canals and channels, including diversions of the normal flow of water in a river bed and the transfer schemes between water catchments and impoundments
  - Dams, levees or weirs affecting the flow of a river
- The change of land use from:
  - Agricultural or undetermined use to any other use
  - Use for grazing to any other form of agricultural use

- The concentration of livestock in a confined structure for the purpose of mass commercial production.

- The intensive husbandry of, or importation of, any plant or animal that has been declared a weed or an invasive alien species.

- The release of any organism outside its natural area of distribution that is used for biological control.

- The genetic modification of any organism with the purpose of fundamentally changing the inherent characteristics of that organism.

- The reclamation of land below the high water mark of the sea and inland water, including wetlands.

The National Water Act, No. 36 of 1998

The Act provides for the classification of water resources, the setting of resource quality objectives and the determination of a reserve for all significant water resources. The reserve is defined by the Act as the quality of water required to meet basic human needs and to protect aquatic ecosystems.

The Act places a general obligation on those in control of land to take reasonable measures to prevent, minimise and rectify any pollution of water resources that has occurred as a result of activities performed on the land in question.
T he Act provides for new controls on -the use of water generally, and allows for the promulgation of regulations relating to a number of aspects of water use, including:

- Regulating or prohibiting any activity in order to protect a water resource, or instream or riparian habitat.

- Limiting or restricting the purpose, manner or extent of water use.

- Prescribing methods for making a volumetric determination of water to ascribe an agricultural practice as a stream flow reduction activity for the purpose of water use allocation and the imposition of charges.

- The Act provides for the control of `stream flow reduction activities'. This refers to activities which in some way reduce the availability of water in a watercourse to an unacceptable extent. The Act presently defines afforestation as a stream flow reduction activity and allows for further stream flow reduction activities, which could include sugarcane, to be declared at a later stage.

Atmospheric Pollution Prevention Act; No. 45 of 1965

There are at present no regulations in place for the control of cane burning. However, the practice of cane burning could be regulated by Part Ill of this Act by declaring it a scheduled activity for which a permit would then be required.

White Paper on integrated Pollution and Waste Management for South Africa

The White Paper emphasises the importance of preventing pollution and waste, and avoiding environmental degradation. The current fragmentation, duplication and lack of co-ordination will be eliminated by reviewing all existing legislation and preparing one piece of legislation that will deal with all waste and pollution matters.

National Forest and Fire Laws Amendment Act, 2001

In terms of this Act the Minister may `declare a tree, groups of trees, woodlands or a species of trees protected.' No species protected in terms of regulations under this act should be removed or damaged during the establishment or management of sugarcane farms.

Occupational Health and Safety Act, No. 85 of 1993

Every employer shall provide and maintain a working environment that is safe and without risk to the health of his employees. Should an employer have 20 or more employees, he is required to appoint health and safety representatives. Where more than 10 people are employed at a work place, the employer shall ensure that at least one person is readily available, during normal work hours, who is in possession of a valid certificate of competency in first aid. There are also requirements under this Act regarding the provision of drinking water and sanitation facilities.

National Heritage Resources Act No. 25 of 1999 and KwaZulu-Natal Heritage Act No. 10 of 1997

This Act is administered by the National Heritage Resource Agency, to protect heritage resources that are considered of national importance.

The KwaZulu-Natal Heritage Act provides for the establishment of Amafa aKwaZulu-Natali as the statutory body to administer heritage conservation on behalf of the KZN provincial government.

These Acts are responsible for the protection of landscapes and natural features,

geological sites of scientific or cultural importance, buildings, graves and burial sites, battlefields, historically and archaeologically important sites and artifacts, including meteorites. The requirements of the Act are integrated into the EIA process and Amafa aKwaZulu-Natali must be consulted at the outset for any development project requiring an EIA.