# INGWE SPATIAL DEVELOPMENT FRAMEWORK PLAN



MARCH 2011

#### **CONTENT PAGE**

1.	Introduction
	1.1 Background
	1.2 Legal Status and Requirements
	1.3 Study Area
2.	Context
	2.1 Policy Context
	2.1.1 National Policies
	2.1.2 Provincial Policies
	2.1.3 Local Policies
	2.2 Neighbouring Planning
	2.2.1 Sisonke District Municipal SDF10
	2.3 Guiding Framework for Local Municipal SDFs and Alignment11
3.	Vision and Principles
	3.1 Spatial Vision for the Municipal Area15
	3.2 Key Principles to inform the SDF15
	3.3 Objectives of the SDF16
4.	
	4.1 Built and Bio-physical Environment17
	4.2 SEA and EMP22
	4.3 Socio-Economic Environment
5.	Proposals
	5.1 Spatial Tools
	5.2 Conceptual Development Concept
	5.3 Spatial Development Framework Proposals
	5.4 Land Use Zones
	5.5 Implications for Land Use Management
6.	Implementation Plan
7.	Conclusion

# **INGWE MUNICIPALITY SPATIAL DEVELOPMENT FRAMEWORK**

# 1. INTRODUCTION

# **1.1 BACKGROUND**

Ingwe Municipality completed the preparation of its comprehensive Integrated Development Plan (IDP) in 2005/06 which included a Spatial Development Framework (SDF) as per legislated requirement. Elements of the IDP have been reviewed during annual reviews as required by legislation. The Spatial Development Framework has however, <u>not</u> been reviewed since 2007/2008.

The Ingwe Municipality has therefore decided to undertake an "in-house" Review of its SDF to take into account changes over the last 3 years and to address alignment with the District Municipality's Spatial Development Framework, the neighbouring Municipalities and vertical alignment with National and Provincial Guidelines which will also include the comments of the MEC in the latest assessment of the Municipality's SDF.

# **1.2 LEGAL STATUS AND REQUIREMENTS**

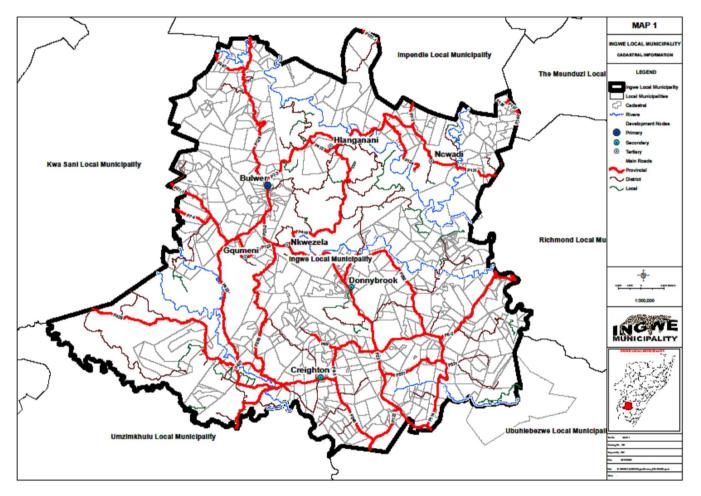
In terms of section 26 (e) of the Local Government Municipal Systems Act, Act 32 of 2000, an Integrated Development Plan is required to incorporate a Spatial Development Framework. This spatial development framework is a framework that seeks to guide the overall spatial distribution of current and desirable land uses within a municipality, in order to give effect to the vision, goals and objectives of the municipal IDP. A Spatial Development Framework is one of the key components of an IDP. Preparation of the Spatial Development Framework is the responsibility of both the local and district municipalities, in order to fulfill its legislative mandate.

# **1.3 STUDY AREA**

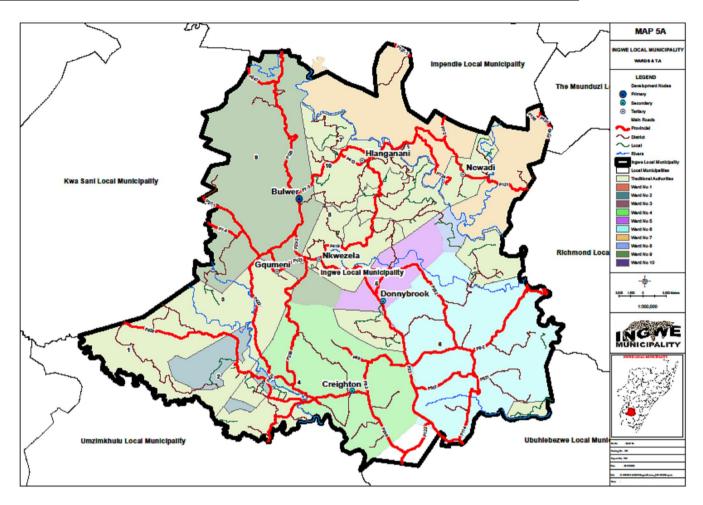
The Ingwe Local Municipality is situated on the Southern parts of KwaZulu-Natal, and is one of the local municipalities that falls under the Sisonke District Municipality, which borders on the Eastern Cape and Lesotho. It is approximately 1 970km in extent, which makes it the second largest municipality within the District. It is bordered by Umzimkhulu and Ubuhlebezwe to the south, Richmond and Umsunduzi to the west, Impendle to the north and KwaSani to the East.

The Ingwe Municipal area is demarcated into ten wards. Three towns anchor the area namely, Bulwer, Creighton and Donnybrook. The town of Creighton fulfils the role of being the administrative centre for Ingwe and acts as the commercial centre for its surroundings within the municipal area.

Below is a map showing the Wards in Ingwe and shows it in relation to its neighbours.



**MAP 1: INGWE CONTEXT** 



# **MAP 2 : INGWE WARD DEMARCATION**

# 2. CONTEXT

# **2.1 POLICY CONTEXT**

# 2.1.1 NATIONAL POLICIES

# 2.1.1.1 THE NATIONAL SPATIAL DEVELOPMENT PERSPECTIVE (NSPD)

The NSDP guides government in implementing its programmes in order to achieve the objectives of halving poverty and unemployment by 2014. The NSDP is built on four basic principles which are :

a) Rapid economic growth that is sustained and inclusive is a pre-requisite for the achievement of poverty alleviation.

- b) Government spending on fixed investment should be focused on localities of economic growth/ or economic potential in order to gear up private sector investment, stimulate sustainable economic activities and create long term employment opportunities.
- c) Where low economic potential exists investments should be directed at projects and programmes to address past and current social inequalities.
- d) In order to overcome the spatial distortions of Apartheid, future settlement and economic development opportunities should be channeled into activity corridors and nodes that are adjacent to or link the main growth centres in order for them to become regional gateways to the global economy.

# 2.1.1.2 ACCELERATED AND SHARED GROWTH INITIATIVE (ASGI-SA)

The following principles and broad national goals are set in ASGI-SA, and are brought through into the Policy Framework of the Provincial Spatial Economic Development Strategy:

- a) Accelerated growth in the economy to more than 4,5 % in the period 2009, and more than 6 % from 2010 to 2014.
- b) Reduce the gap between the first and second economies, and halve poverty and unemployment by 2014.
- c) Ensure that social security reaches all who are eligible.

#### 2.1.2 PROVINCIAL POLICIES

At a strategic level, the **Provincial Spatial Economic Development Strategy (PSEDS)** released in November 2006, strongly reinforces the concept of promoting development around the main activity corridors of the Province. Future residential, tourism and infrastructural development is to be focused on the main identified corridors of the Province. The PSEDS states that infrastructure investment and development spending should primarily support localities that will become future growth nodes, supported by municipal integrated development plans.

The PSEDS seeks to align the Millennium Development Goals adopted by the United Nations with the KwaZulu-Natal Provincial Growth and Development Strategy and to harness the fiscal, financial and human resources at its disposal towards eradicating poverty, creating employment and laying the foundations for accelerated economic growth. (Pg 3, PSEDS: 2006). Moreover, the PSEDS seeks the means to achieve the Accelerated and Shared Growth Initiative (AGSI-SA) announced by government in February 2006, to place South Africa on a permanently higher growth path of more than 4,5% in the period to 2009 and more than 6% from 2010 to 2014. All development should therefore be focused round achieving the objectives of the strategy.

One of the key objectives of the PSEDS is to redress the lopsided economic and social costs for poor communities in locations far from employment and other opportunities.

The PSEDS seeks to achieve its objectives through a system of aligned municipal integrated development plans and spatial development frameworks. To this extent the Ingwe Spatial Development Framework is aligned with provincial objectives in that it identifies areas for development, acknowledging that the primary movement corridors created by the road and rail links are major assets and a provincial priority. These main corridors provide the opportunity for future settlement and economic development opportunities to be channelled into activity corridors and nodes that are adjacent to or link main growth centers in order for them to become regional gateways to the global economy. (Pg 10, PSEDS : 2006)

# 2.1.3 LOCAL POLICIES

The SDF review process has also incorporated the following local policies which are:

# Land Use Management

As a tool to guide development and promote sustainable livelihood, maximizing the use of land.

# • Wetland and Riverine Systems

Which is aimed at supporting the overland flow of water into wetlands and river systems which have been identified in the Provincial Conservation Plan as important habitat supporting a wide range of biodiversity.

# • Areas of High Biodiversity Value

This is to control certain areas within Ingwe that have been identified in the Provincial Conservation Plan as areas of irreplacability. The sites must be conserved as they present areas of land which are critical for the survival of various species in KwaZulu-Natal.

#### • The Development and Subdivision of Rural Land

a) Agriculture and tourism are key economic components of the Municipality's economy. While good quality agricultural land should be conserved, tourism

developments and other forms of non-agricultural development need to be encouraged to provide employment and to create wealth within Ingwe and to diversify the economy.

- b) Tourist developments such as lodges, bed and breakfast establishments and a limited number of self catering chalets, aimed at supplementing farming income may be considered throughout the rural areas of the municipality.
- c) It is essential to conserve high potential agricultural land for agricultural purposes. The subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposed should only be allowed if:
  - o It will assist in implementing Land Reform.
  - The farming unit is not viable as it stands or has been subdivided to an extent that it is no longer agriculturally viable
  - The land has already been developed for non-agricultural purposes

#### • Establishment of Communication Towers

To promote health, safety, welfare, and enjoyment of the residents of Ingwe municipality, by accommodating the need for communication services. To direct the location of communication towers within the municipality while minimizing adverse impact caused by the towers. To mitigate the potential adverse affects of communication towers by promoting careful placement and siting, and requiring landscaping, screening and camouflage techniques.Policy guidelines in this regard have been included in Ingwe's Reviewed Draft Scheme.

# 2.2 NEIGHBOURING PLANS

# 2.2.1 SISONKE DISTRICT MUNICIPALITY SDF

The PSEDS needs to be interpreted and applied at a District level, including an emphasis upon exploiting local comparative advantages. The KZN PSEDS isolates three sectors as being of special relevance for Sisonke – agriculture, tourism and services. In the Sisonke case, public sector services and government grants and assistance are an especially frequent source of livelihood. However, the latter are mainly relevant for redistribution and poverty alleviation rather than economic growth.

With particular relevance for Sisonke, the PSEDS identifies tourism as being second in overall provincial economic growth potential (second to industrial development, for

which there is limited potential in Sisonke); whilst agriculture and agri-business (strong in Sisonke) are seen as:

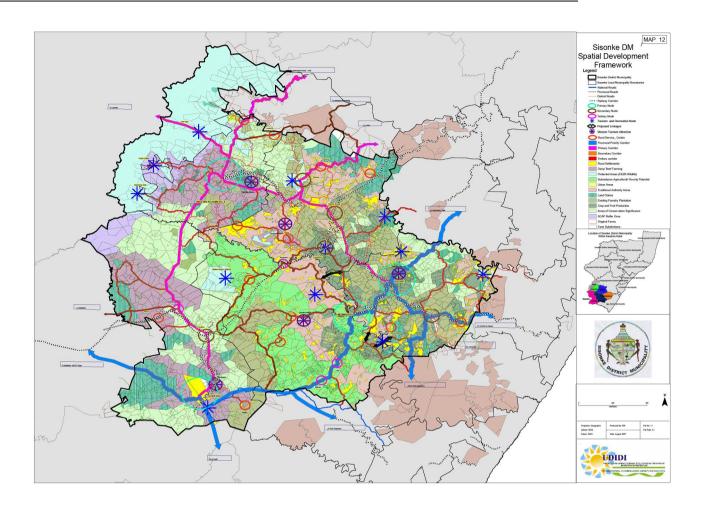
- Being the largest existing and potential employer in rural areas, and
- Being able to make the greatest impact on reducing poverty levels in rural areas.

From a private sector based employment perspective, in Sisonke, one is starting off a slim base; and government itself is the overwhelmingly dominant economic actor from the standpoint of the de facto origins of current people's incomes. Thus the location of public facilities, including for example pension-payout points, magistrates courts, clinics, schools, etc is quite fundamental to spatial planning for this area.

Both the NSDP and PGDS recognise that social and economic development is never evenly distributed and spatial disparities will always exist due to the spatial distribution of natural resources, historical imperatives and cultural factors. These spatial disparities have been aggravated by apartheid spatial planning. This has resulted in a disjuncture between where people live and where social and economic opportunities are concentrated. This spatial marginalization from economic opportunities of the majority of the population needs to be addressed in order to reduce poverty and inequality and ensure shared growth.

In recognition of the above it is imperative that Government spatially references their programmes and plans contained in the PGDS. This ensures that plans take account of the inevitable spatial disparities and ensure that optimal investment decisions are made. It is against this background that the PSEDS has been developed.

The PSEDS focuses fixed infrastructure investments in areas of economic development potential (whether realised or dormant), and prioritises areas of greatest need based on poverty densities. This does not imply that other areas, with lower economic growth potential, will be neglected. All areas in the Province will receive investments in development and the provision of basic services.



# MAP 3: THE SISONKE SDF - 2007/8

The Sisonke SDF outlines the following Spatial Development Priorities that needs to be taken into account in the Ingwe Local Municipal area:

- Need to preserve Ngwagwane Catchment for water production. This would entail the conservation of the areas bio-diversity.
- Promotion of Commercial farming (livestock, dairy farming). Good quality agricultural land is a scarce natural resource and should be managed in a sustainable manner.
- Promotion of Avi, Eco and Mission Tourism as part of the cultural heritage.
- Railway line having potential to promote Mission tourism, Agric-commercial development with the establishment of bio-fuel plant in Donnybrook and milk factory development and Zibambele initiative on maintaining the railway line.
- Need for land for Agricultural development for emergent farmers.

The Sisonke SDF further recognises the urban centres of Creighton, Donnybrook and Bulwer as important secondary nodes at the District level which have potential for growth and good existing

levels of economic development. Typical services that can be expected at these nodes can include police stations, low level retail services, low levels of housing development (less than 1000 lots), Agri industries, small scale tourism, education facilities (primary and secondary), clinics, pension payout points, community halls etc.

**Rural Service Nodes** have been identified at Centacow and Ncwadi and represent the lowest order of locality, where a range of service and economic activities could be concentrated in a sustainable way. These are the most accessible locations within an acceptable distance of communities.

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

- (i) Clinic / Mobile Service
- (ii) Post Boxes
- (iii) Shops
- (iv) Secondary and Primary School
- (v) Weekly Service
- (vi) Weekly / Mobile Service
- (vii) Pension Payout Point
- (viii) Taxi Rank; and
- (ix) Traditional Authority Court

The above guidelines and recommendations have accordingly been incorporated into the Ingwe SDF Review.

# 2.3 GUIDING FRAMEWORK FOR LOCAL SDF'S AND ALIGNMENT<sup>1</sup>

#### 2.3.1 INTRODUCTION

In order to ensure vertical alignment between planning initiatives in the District, a Guidance Framework for the formulation of Local SDF's is required. It must be noted that this guidance is at a general level, and that it does not replace the need for the formulation of local SDF's.

The guiding principles contained in District SDF aims to assist Local municipalities with the compilation of their SDF's, as well as to facilitate integration between the two spheres of Municipalities in the planning process.

<sup>&</sup>lt;sup>1</sup> As derived from the Sisonke SDF 2007/8

#### 2.3.2 ELEMENTS OF THE FRAMEWORK

#### (i) <u>Development Concepts</u>

In the first instance, the requirements of a SDF as set out in the Municipal Systems Act Regulations must be adhered to. In this regard, a number of guideline documents have also been produced by the National Department of Provincial and Local Government (DPLG) and DLGTA.

In principle, the planning concept of a hierarchy of nodes connected by a system of corridors should be utilised.

It is important that the SDF be a spatial reflection of the municipality's general development objectives as contained in the IDP. In addition to this, the desired future spatial pattern in a municipality should be based on general planning and development principles as influenced by the local contexts.

In order to achieve this, identification of development informants should be derived through a process of overlay analysis utilising a GIS System. In addition to its obvious technological superiority this system will also assist in the development of consistent databases that can be shared by various role-players.

#### (ii) Development Nodes

As set out in the District SDF, the relative importance of development nodes is a reflection of their economic development potential and the range of service that should be provided. The nodal hierarchy in the District SDF should be interpreted in a district context. At the local SDF level, the identification and classification of nodes should follow a similar methodology as that of the district but it must be influenced by the various centres in the local economy.

Notwithstanding the broad level of indication of nodes at a district level, it is of the utmost importance at the local level that any identified nodes be clearly demarcated on a cadastral basis. Such demarcation is important in order to:

- Optimise the use of existing bulk infrastructure and social facilities
- Discourage urban sprawl
- Ensure compact and efficient urban areas
- Protect agricultural land with high production potential
- Provide guidance to both public and private sectors investors
- Promote economic, social and environmental sustainability
- Accommodate reasonable future demand for development

#### (iii) <u>Development Corridors</u>

In addition to the need to promote compact and efficient urban areas it is also essential that spatial planning at a local level addresses the imbalances created by apartheid planning. One of the planning tools that can be utilised to achieve this is development corridors. Through the use of development corridors, previously segregated areas can be connected and opportunities created for economic development in previously disadvantaged communities. In addition to this, it can also achieve the correction of spatial imbalances through the identification of alternative development axis. An example of this would be the concentration of development along the R56 corridor and the need to provide employment and investment opportunities in an East – West axis.

Although the main objectives of corridors are to achieve integration, improve access and provide investment opportunities, it does not imply that development should be allowed to occur on an ad-hoc basis along the entire length of such corridors. Local area plans for such corridors should be formulated as part of local SDF's to achieve an optimum mix of land uses.

#### (iv) Agriculture and Land Reform

The correct management of agricultural land will be a critical element of local SDF's.

The Department of Agriculture, during the consultation process, pointed out that the classification used in the District SDF is at a broad scale and based only on soil types and climatic conditions. At the local SDF level, this classification needs to be refined using factors such as slope and existing land use. In addition, allowance should be made for different types of agriculture and the need to accommodate land reform programmes. The outcomes of the Area Based Management initiatives by the Department of Land Affairs should be interpreted and included into the local SDF's.

#### (v) <u>Environmental Considerations and Water Management</u>

As is the case with agricultural land, the District is particularly well endowed with regard to areas of environmental significance.

The C-Plan and Minset data reflects environmental importance at a broad scale. At the local SDF and LUMS level, this would have to be refined through detailed analysis as part of the SEA, EMP and EMF process.

In this regard, a guideline document has been developed by the Provincial Department of Agriculture and Environmental Affairs in conjunction with the National Department of Environmental Affairs entitled "Environmental Sustainability Toolkit for Integrated Development Planning in KwaZulu Natal" April 2007.

As far as water management is concerned, the importance of potential water and impoundment areas (dam sites) cannot be overemphasized.

At a local SDF level, the possible impact of development on water quality and quantity would be a critical consideration. In this regard, Water Resource Management Plans should be compiled as one of the sector plans in the IDP and the outcomes integrated into the SDF's. As part of this process, more specific demarcation and associated land use guidelines of the Headwaters Strategic Areas will be required.

#### 3. VISION AND PRINCIPLES

# 3.1. SPATIAL VISION FOR THE MUNICIPAL AREA

TO ENSURE THE PROVISION OF AFFORDABLE BASIC SERVICES TO ALL COMMUNITIES WITHIN THE AREA OF JURISDICTION, PROMOTE SUSTAINABLE ECONOMIC, SOCIAL DEVELOPMENT AND PROTECT THE ENVIRONMENT THROUGH THE INGWE SDF.

#### 3.2. KEY PRINCIPLES TO INFORM SDF

The Ingwe SDF is informed by various key principles i.e. International, National & Provincial principles as outlined below;

INTERNATIONAL MILLENIUM DEVELOPMENT GOALS	INGWE'S SDF
Eradicate extreme poverty & hunger	Generate social & economic opportunities
	for people
Achieve universal primary education	Ensuring efficient settlements patterns
Promote gender equality & empowerment	Promote accessibility to services &
	employment opportunities
Reduce child mortality	Promote the efficient use of infrastructure &
	resources
Improve maternal health	Promote the efficient use of infrastructure &
	resources
Combat diseases (HIV, Malaria etc)	Promote the efficient use of infrastructure &
	resources
Ensure environmental sustainability	Protecting environmental resources within a
	municipality
Develop global patnership for development	Promote sustainable economic development

NATIONAL SERVICE DELIVERY TARGETS	INGWE'S SDF
No. of households with access to clean water	Promote sustainable settlement pattern
No. of HH with access to sanitation facility	(accessibility to services)
No. of HH with access to electricity	
% of white owned agricultural land will be	Protect productive land for agricultural
distributed for sustainable agricultural	purposes
development	

PGDS	INGWE'S SDF
Strengthening governance & service delivery	Promote the efficient use of infrastructure &
	resources
Sustainable economic development & job	Promote the efficient use of infrastructure &
creation	resources
Integrating investments in community	Provide strategic guidance in respect of
infrastructure	location and nature of development within
	the municipality
Developing human capacity	Generate social & economic opportunities
	for people
Developing a comprehensive response to	Promote the efficient use of infrastructure &
HIV / AIDS	resources
Fighting poverty & protecting vulnerability	Generate social & economic opportunities
groups in society	for people

# 3.3. OBJECTIVES OF THE SDF

- Promote sustainable settlement patterns
- Ensure the efficient use of resources
- Ensure compatibility with the IDP's of adjacent municipalities
- Identify the existing spatial development within the municipality
- Develop a desirable spatial pattern in terms of the objectives of the municipality's IDP
- Provide strategic guidance in respect of location and nature of development within the municipality
- Identify the need for the development of land within the municipality

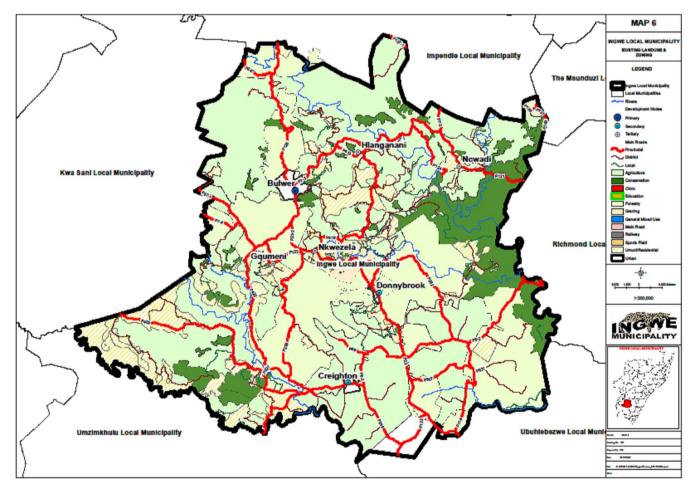
#### 4. SPATIAL ANALYSIS

A number of maps were used to inform the development of the Ingwe Spatial Development Framework as follows:-

Cadastral, KZN Wildlife Combined Minset and C-Plan Data, Agricultural Land Potential, Important Species, Wetlands and Eco-Systems, Settlement areas, Land Reform, Land Use and the previous Spatial Development Framework.

From a study of the abovementioned maps, the following key spatial trends and issues have emerged:

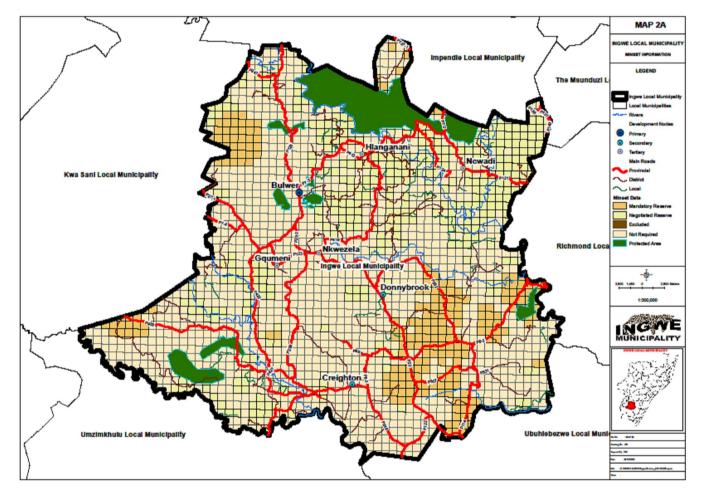
# 4.1 BUILT AND BIO-PHYSICAL ENVIRONMENT



MAP 4 : INGWE LAND USE

# i) Conservation

The KZN Wildlife database identifies a number of reserves and wetlands throughout Ingwe Municipality which is shown on Map below. In addition, there are a number of areas identified in the KZN Wildlife C-Plan initiative which show the areas as being irreplaceable. The potential exists for these areas to form biodiversity corridors and to be included into formal conservation areas or conservancies.

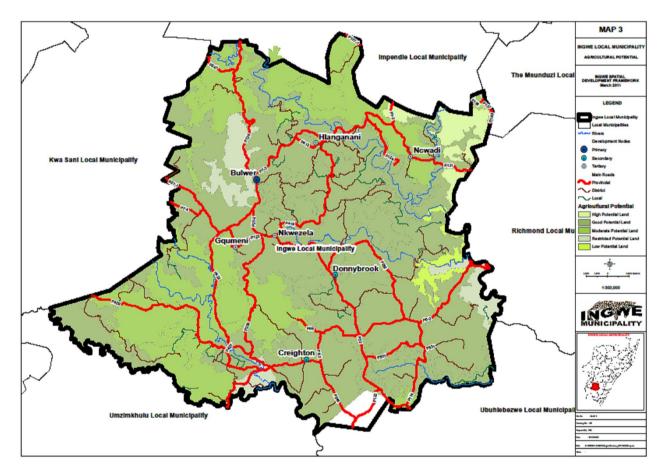


MAP 5: EKZNW AREAS OF IRREPLACEABILITY

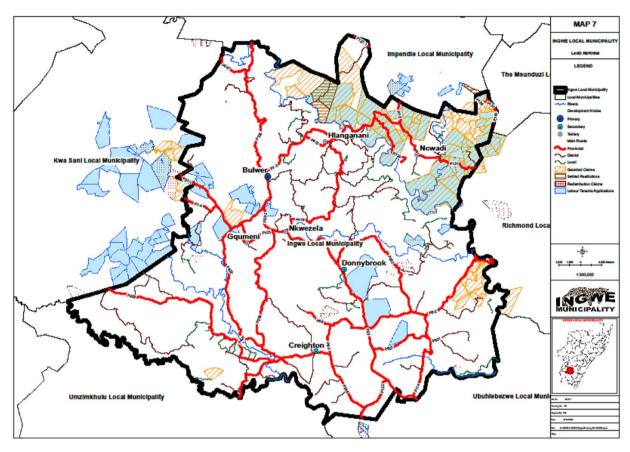
# ii) Agriculture and Land Reform

The Municipality should seek to conserve good potential agricultural land throughout the Municipality. Agricultural land should be developed for livestock, game, timber and vegetable farming and should also be used to support land reform beneficiaries particularly opportunities in agri-tourism. Road linkages need to be improved into the agricultural areas and Creighton, Donnybrook and Bulwer should be strengthened as agricultural service centres and agri-processing centres.

Tourism ventures should also be encourage in rural areas provided these do not encourage the fragmentation of good potential agricultural land nor adversely affect the agricultural viability of the land.



MAP 6: AGRICULTURAL POTENTIAL IN INGWE



MAP 7: INGWE GAZZETTED LAND CLAIMS

# iii) Tourism

The Drakensberg is a major tourist attraction and road links through to the southern Drakensberg and the Midlands should be improved. The main road between Umsunduzi, Bulwer and Underberg contains many areas of scenic beauty and important landscapes. Development along this route is to be undertaken with care so as not to detract from the visual asset value of the area.

Although a substantial amount of the Ingwe Municipality is used for commercial agriculture and in particular forestry, it contains a number of natural resources and landscapes which provide the opportunity for ecotourism.

Potential exits to create tourism opportunities based on the writings of Alan Paton. Railway tourism has also been identified as an important issue and all railway sidings have been identified in the SDF as well as a proposed railway tourism route proposed by the Municipality.

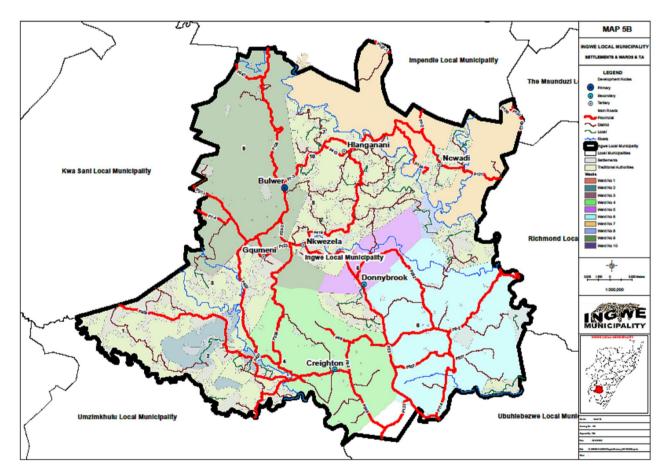
#### iv) Housing

There is potential for rural housing developments in traditional authority settlements throughout Ingwe.

Old railway houses at Donnybrook have the potential to be upgraded to meet the housing need at Donnybrook.

Land for the expansion of Donnybrook, Bulwer and Creighton has been identified in the SDF to accommodate affordable housing for civil servants and middle income earners and for up-market housing developments.

Hlanganani is a semi formal settlement to the north of Bulwer used to accommodate public servant's housing. The village needs to be upgraded through the provision of formal services and infrastructure and through the provision of secure tenure.



**MAP 8: INGWE SETTLEMENTS** 

# v) Commercial Expansion

Land for commercial expansion has been identified in Bulwer, Creighton and Donnybrook as part of the SDF process. Suitable land for commercial expansion has been addressed in the land use management schemes for the above towns.

# vi) Urban Expansion - Bulwer

The old town lands of Bulwer were identified by the Department of Agriculture as being too extensive for inclusion into a formal town planning scheme at this stage. An area of land around the existing town has been identified to accommodate short and medium term urban expansion of Bulwer and the Municipality is currently in the process of putting a scheme in place.

The town centre of Bulwer needs to be upgraded in order to present a new face to attract tourists and passing motorists to stop in Bulwer. The proposals include the redevelopment of the old prison for municipal and government services which could include a multi-purpose centre, a market and trading area in close proximity to the existing taxi rank and town centre.

# v) Urban Expansion - Donnybrook

The town of Donnybrook has limited residential expansion opportunities as it stands. Traditional authority land and conservation areas to the east prevent expansion in that direction. The extensive railway land can be partially used for residential redevelopment and for industrial expansion. Possible residential expansion of Donnybrook for middle and upper income development is proposed towards the west across the main road.

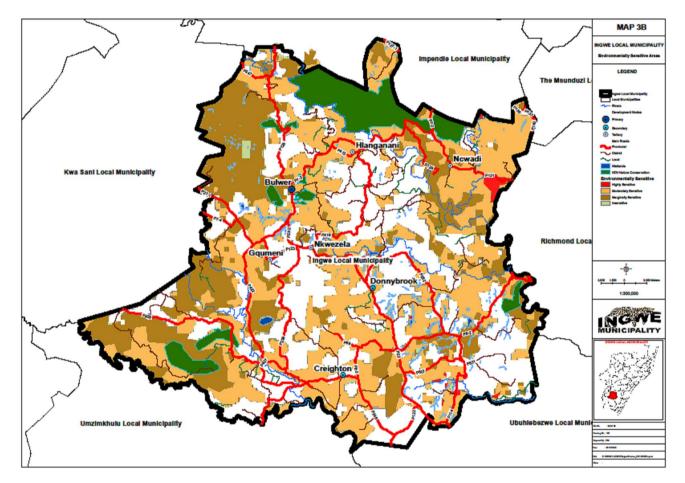
# vii) Urban Expansion – Creighton

At Creighton, additional land is required for affordable housing. The golf course can be partially redeveloped for additional middle and upper income housing.

# 4.2 THE STRATEGIC ENVIRONMENTAL ASSESSMENT AND ENVIRONMENTAL MANAGEMENT PLAN

The Ingwe Municipality does not have an independent environmental management tool. However, the Municipality has partnered with all other Municipalities within the District to formulate a District wide environmental management tool. The SDM in partnership with Ingwe and other Local Municipalities are in the process of preparing a Strategic Environmental Assessment and Environmental Management Plan for the District and its local municipalities.

The SEA aims to integrate the natural environmental concerns into the planning process, at the same level at which social, economic and institutional considerations are address. The SEA serves as a tool for the practical translation of the idea of sustainability into programs and projects within the IDP and this SDF. The plan has identified an number of species, vegetation and chain of important ecosystem that needs to be preserved and protected. Below is a plan that indicates the areas of environmental sensitivity which has been used as the base information in the preparation of this SDF.



MAP 9: ENVIRONMENTALLY SENSITIVE AREAS

The terrain and topographical formation of Ingwe Municipality presents a diverse environmental opportunities and challenges. The area is mostly covered by land under commercial farming, rivers and streams, indigenous forest, wetlands and forestation. These natural resources are identified as pillars of the ecosystem. A well protected ecosystem opens opportunities for the tourism industry. In order to protect and preserve these natural resources an EMP was prepared.

This Environmental Management Plan therefore forms part of the IDP and its main objectives are:

• To provide Council with an environmental inventory which provides the basis for

establishing an interlinking system of conservation reserves, good agricultural land and public spaces, and which will assist Council in the process of development management

- To minimise harmful developmental tendencies which may affect the environment
- To recommend environmental principles which will assist in the maintenance and improvement of the present urban environment
- To designate boundary limitations of conservation areas in the area to enhance species survival in the long term.

The EMP does not supersede any legislation and does not exempt developers from any other requirements but does attempt to provide insight into development potentials and limitations. And as such would inform municipal input into an authorisation of development applications as well as inform planning initiatives within the district. Moreover, the plan identifies all natural resources that contributes towards the maintenance of the ecosystems and develop environmental zones. Each zone clearly outlines significance of that particular natural resource and provides management recommendations.

# 4.3 SOCIO-ECONOMIC ENVIRONMENT

The source of the socio-economic analysis is drawn from the Local Economic Development (LED) Strategy. The Ingwe Municipality is predominantly rural with the majority of the population leaving in rural areas within traditional authority areas. The Bulwer, Creighton and Donnybrook areas serves as urban centers of these rural communities. However, the services provided by these urban centers are inadequate to satisfy the economical and service needs of its population.

The Ingwe Municipality has recently done a Baseline Socio-economic Study, which revealed that that all these urban centers are underdeveloped. The vast of the population is residing in rural areas where employment opportunities are very limited. Therefore, the Ingwe municipal population is more dependent on the District and Regional economy for survival. Based on the rural nature of the Municipality, it is more beneficiary to assess the socio-economical position at a district level. The population and employment statistics presented below is drawn from the Sisonke District Municipal IDP in order to present the regional context for the economic and social development.

# 4.6.1 Population Distribution

The figures below are based on Census 2007 estimates. These figures indicate a population sparsely spread throughout an area of 11 127.89997 square meters.

Source: St	Source: Statistics 2007									
Municipality	Population	Percentage	Household	Percentage						
Sisonke	500,082	4,9% of Province	105, 659	4,7% of Province						
Ingwe	114,116	23% of District	22,289	21% of District						
KwaSani	14,281	3% of District	4,420	4% of District						
Greater Kokstad	46,724	9% of District	14,321	14% of District						
Ubuhlebezwe	80,905	16% of District	21,084	20% of District						

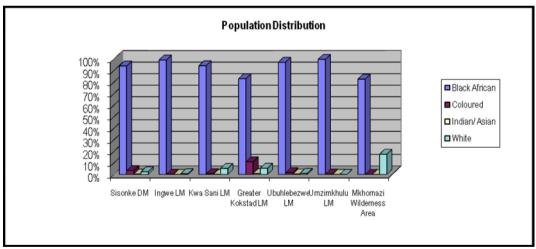
ι	uMzimkhulu	243,242	49% of District	43,545	41% of District

The rural settlements are spatially disintegrated and monofunctional in nature. The District Municipality has prepared a Spatial Development Framework which aims at integrating rural settlements to the regional economy. The Spatial Development Framework outlines hierarchy of nodes in terms of primary, secondary, tertiary nodes and hubs. The above figure indicates that Umzimkhulu, Ingwe and Ubuhlebezwe Local Municipalities are the most populated respectively, within the District. Greater Kokstad is the fourth populated after the mentioned three local municipalities followed by KwaSani and DMA/ Umkhomazi Wilderness Area.

#### 4.6.2 Population/ Racial Distribution:

Municipality	Black	Coloured	Indian or Asian	White
Ingwe	98%	0,5%	0,5%	1%
Kwa Sani	91,9%	1,1%	0,3%	6,7%
Greater Kokstad	82%	12,8%	1,2%	4%
Ubuhlebezwe	97%	0,9%	0,1%	1,9
Umzimkhulu	99%	0,6%	0,3%	0,1%
Sisonke Total	93,4%	2.5%	2,1%	2%

Source: Stats SA 2007



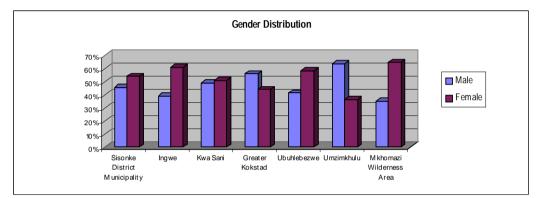
Source: Statistics 2007

The above figure reflects the Black African dominance across all the Municipalities. This is an indication or confirmation of the racial demographics across the country. One notices the second dominant group of Whites across the entire district except in Greater Kokstad where the Coloured population is the second dominant within the Municipality. The rural nature of the District and the dominance of Black African may indicate the plight of all rural communities that

are characterised by huge service backlogs, abject poverty, unemployment and other social development challenges.

Gender distribution is also a determinant factor in assisting the government at all levels to focus investment especially to vulnerable groups like women. The gender figures also help the government to provide appropriate facilities and social investments in line with gender demographics other programs can be seen in our strategic matrix in section D of this document. The following figure indicates the gender distribution within the Sisonke District:

#### 4.6.3 Gender Distribution



Source: Statistics 2007

The above figure clearly indicates the female dominance at a district level with the exception of Umzimkhulu and Greater Kokstad Municipalities. The situation in these municipalities may be attributed to female absenteeism who work as migrant workers in the major towns of the country or HIV/Aids devastation which is arguably stronger to women folk. This can also be true where there is a huge dominance of women which can be attributed to single women households, husbands working as migrant workers or have died because of HIV/Aids.

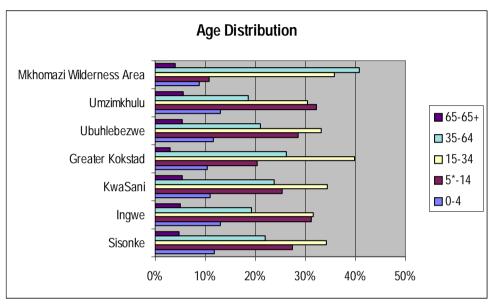
The age distribution in a society is also a determinant for the government institutions to supply appropriate social investments for the relevant age groupings. The following indicates the age distribution of the population within Sisonke District:

#### 4.6.4 Age Composition

Age group	Ingwe	Kwasani	Kokstad	Ubuhlebezwe	Umzimkhulu	DMA
0-4	13.3%	13.7%	11.3%	13.7%	13.8%	9.2%
5-9	15%	10.6%	14.2%	15.1%	16%	5.5%
10-14	15%	12.6%	11.2%	13.9%	16.6%	5.2%
15-19	13.3%	11.2%	10.6%	13.2%	15%	4.3%
20-24	10.5%	9.3%	8.9%	10%	9.3%	12%
25-29	6.6%	8.2%	8.8%	9.2%	5.6%	9.3%
30-34	6.6%	8.2%	9.8%	7.6%	5.2%	14%

35-39	5.4%	6.5%	7.4%	5.8%	4.9%	12%
40-44	4%	6.5%	5.5%	4.7%	3.6%	6.7%
45-49	4.1%	4.6%	6.2%	5.4%	3.8%	6.7%
50-54	3%	4.9%	3.7%	3.5%	2.8%	6.9%
55-59	2.9%	2.9%	2%	4.2%	2.8%	7.6%
60+	0.5%	0.7%	0.6%	0.6%	0.5%	0.9%

Source: Stats SA 2007

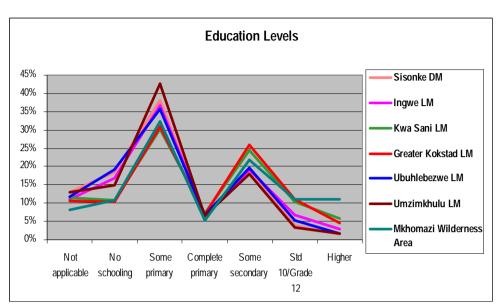


Source: Statistics 2007

At a district level the age group between 15 to 34 years, which is categorized as youth, is the most dominant and in almost all the local municipalities. This is the same group that forms part of the active labour group, which is also sexually active. This is the most vulnerable group to the social ills including unemployment, prone to HIV/ Aids and other infections, involvement in crime and drugs etc. Improper handling of this group may result to negative social challenges. The huge numbers of this age group call for a need for creation of employment opportunities, provision of educational facilities to cater for their needs. Failure to do so will result to a huge influx of youthful members of Sisonke to other major towns for better employment (brain-drain) and education opportunities. As a district we have put money aside to assist this group of our population. The senior citizens record the lowest number across all municipalities. The middle age (35 to 64) is the third in dominance of the Sisonke population.

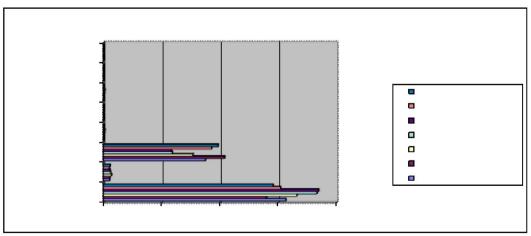
# 4.6.5 Education Profile

The level of education attained by an individual is a measure upon which s/he is able to compete effectively for job opportunities. The inability of an individual to be unable to perform certain basic functions due to literacy is also defined as human poverty. Low educational levels are likely to push individuals to unemployment and in low paying jobs. Low educational levels also limit the ability of an individual to learn new skills and be trained. The following figure indicates educational levels within the District:



Source: Statistics 2007

The figure indicates less than 20% of people that are illiterate and a majority of people with some primary (grade 1 to 7) and less than 10% who completed primary education. Less than 30% of people have attained some secondary education. Less than 15% of the people have passed Grade 12. Less than 10% of the population attained educational qualifications beyond Grade 12 with the exception of Mkhomazi Wilderness areas with more than 10% recordings. These figures pose a serious threat to the income levels and affordability levels of households to cater for their children. The following figure indicates the school attendance of various community groupings: As a district we are working together with the Department of Education in instilling the culture of learning to our children.



Source: Statistics 2007

The above figure indicates lowest to non-existent numbers of people attending educational institutions beyond Grade 12. This may be owed to low affordability levels and/or lack of tertiary facilities within the District. Low affordability levels of households can result to early school leavers and high dependency ratios. It is also worrying to have low figures of people attending ABET Centres in order to improve literacy levels.

#### 4.6.6 Employment Status

Employment status is strongly related to educational status. The following table indicates the employment status of the labour active population:

Employment	Ingwe	Kwasani	Kokstad	Ubuhlebezwe	Umzimkhulu	DMA
status						
Employed	39.7%	47.8%	54.1%	27.6%	15.2%	
Unemployed	19.8%	22.9%	17.3%	16.6%	22%	
Not economically	40.5%	29.3%	28.6%	55.6%	62.8%	
active						

#### Source: Stats SA 2007

The above table indicates high unemployment figures, which can be interpreted to mean high dependency ratios and low affordability levels. This is not however surprising given low educational levels. Sisonke District Municipality has since coordinated a number of Local Economic Development programs and cooperatives together with various sector departments to assist this section of our society in trying to push back frontiers of poverty.

#### 4.6.7 Sisonke Employment Sectors

OCCUPATION	Ingwe	Kwasani	Kokstad	Ubuhlebezwe	Umzimkhulu	DMA
Legislators,	1.4 %	3.2%	3.4%	1.1%	0.3%	
senior						
Professionals	2%	2.9%	6.9%	3.2%	1.0%	
Technicians	1.0%	1.1%	2.4%	0.4%	0.4%	
Clerk	1.4%	2.1%	3.6%	2%	0.3%	
Service workers	1.7%	3.3%	6.4%	1.5%	0.8%	
Skilled	0.2%	3.5%	2.6%	2.8%	1.1%	
agriculture						
Craft & related	2.8%	2.0%	4.9%	1.8%	0.6%	
Plant &	1.5%	3.9%	4.4%	1.6%	0.6%	
machine						
Elementary	7.7%	13.9%	13.4%	7.3%	2.8%	
Occupations	16.4%	8.7%	4.0%	3.7%	6.9%	
unspecified						
Not applicable	61.7%	55.5%	48%	73%	85%	100%

#### Source: Stats SA 2007

The above figures reflect education and unemployment levels with over 40% of labour active individuals in each municipality without income. This means that there are individuals living below the poverty datum line which is an equivalent of \$1 US per day. If converted to South African Currency it should be R7 per day. The table below also indicates low income levels resulting to low affordability levels, and the DMA case is of serious concern since in that area there no formally or informal access to income that was recorded.

INCOME	Ingwe	Kwasani	Kokstad	Ubuhlebezwe	Umzimkhulu
R1-R 400	23%	8.5%	10.9%	13.2%	15.4%
R401 – R 800	29.6%	24.5%	17.9%	25%	22%
R801 - R1 600	33%	37.5%	31.6%	44%	46.6%
R1601-R3 200	6.5%	10%	12.3%	6.2%	7%
R3201-R6 400	4.4%	9.5%	13%	5.2%	4.2%
R6 401-R12 800	3.2%	4.9%	11.5%	4.1%	35.4%
R12 801 -R25 600		4.2%	3.2%	1.2%	0.3%
R25 600- R51 200	0.3%	0.7%	0.8%	0.3%	0.3%
R51 201 – R102 400					
R102 401 – R204 800				0.6%	0.5%
R204 801 or more		0.2%	0.2%		

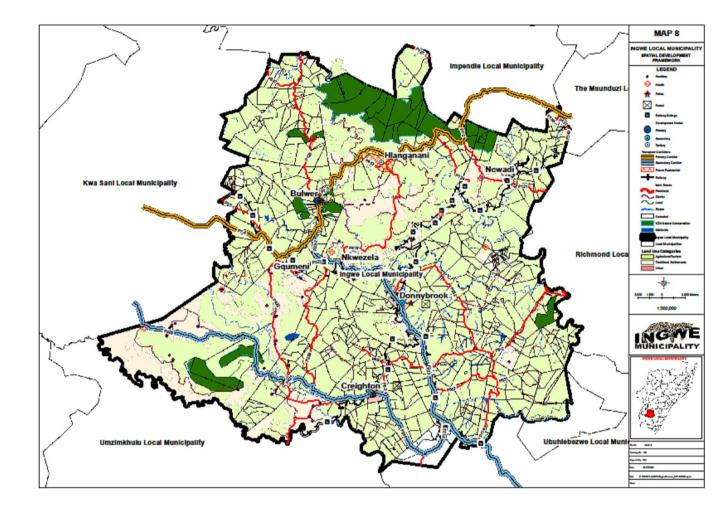
#### 4.6.8 Individual Monthly Income Levels

Source: Stats SA 2007

A large number of our work force earn between R1 to R1600 a month. This is attributed to the level of education that we find in the district. More professionals and people with skills on various areas need to be prioritize through various interventions like forming strategic partnerships with either Private or Public entities.

These population and employment dynamics indicates that the economy and social development of Ingwe is dependent on the regional economy. The existing spatial setup can only be improved through integration of services and resources with various government and private sector initiatives.

# 5. PROPOSALS



MAP 10: INGWE SPATIAL DEVELOPMENT FRAMEWORK

# **5.1 SPATIAL TOOLS**

The development of the SDF should be considered against various spatial management tools. Key environmental management plans such as the Environmental Management Plan as well as the strategic environmental assessment have highlight key environmental issues and concerns that are likely to affect spatial development decision. Biodiversity plans also assist in minimising the loss of species resulting from the development of area and this create an open space that represents the full range of habitants which has positive contribution to the tourism sector of the area.

A Land use Scheme is also a very important tool required to develop the SDF into either a composite Physical Development plan. This plan has more detail cadastral base that provides basic for the development of the SDF. Waters Services Development Plan is also critical tool in determining water and Sanitation infrastructure that exists within specific areas. These plans greatly assist towards tabling SDF proposing and ranking of areas.

# 5.2 CONCEPTUAL DEVELOPMENT CONCEPT

A spatial Development Framework provides a broad indication of where different types of development should take place within the municipal area. An important feature of the SDF is the system of corridors which are used to link nodes and settlements within Ingwe and to link Ingwe to adjacent municipalities. The Spatial Development concept is based on the following:

- location and accessibility
- settlement patterns
- land reform issues
- availability of services
- economic opportunities
- areas that require conservation
- areas that are of historical importance

# **5.3 SPATIAL DEVELOPMENT FRAMEWORK PROPOSALS**

The Provincial Spatial Economic Development Strategy identifies a number of key corridors throughout KwaZulu-Natal and also identifies the types of development potential each corridor has. For Ingwe, two main corridors have been identified:

- a) The Okhahlamba Corridor which includes the link between the Southern Drakensberg through Underberg to Bulwer and the Midlands. This corridor is identified as being focussed on tourism attractions.
- b) The Port Shepstone, Ixopo corridor and by implication, the main corridor between Ixopo, Donnybrook and Bulwer has been identified as an important tourism corridor and as an area to focus on production of labour intensive, mass produced goods more dependent on labour costs, affordable transport linkages such as agriculture and mining.

# 5.3.1 MOVEMENT CORRIDORS

The Spatial Development highlight three levels of road networks which distinguishes between the higher order and lower order roads. In terms of the latest SDF guidelines corridors are defines as linkage systems between nodes, along these corridors there would be an increase intensity of development that will be naturally attracted and development should be encouraged. Corridors are to encourage access to opportunities and they should provide an appropriate level of access to the

opportunities along the corridor and would typically include public transport. The following are the three main road networks

- Primary Corridor
- Secondary Corridor
- Tertiary Corridors

# 5.3.1.1 Primary Corridor

R617 is a primary corridor as it has greatest potential in terms of tourism and service growth due to the relatively high volume of traffic on the route. This road was identified as an important tourist route with areas of scenic beauty and landscape. Development along this route is to be undertaken with care so as not to detract from the visual asset value of the area. It also provides high linkages with surrounding municipality and economic nodes, serve as a link for Drakensberg Resorts to Pietermaritzburg and Eastern Cape.

# 5.3.1.2 Secondary Corridors

R612 serve as a corridor between Ixopo, Donnybrook and Bulwer has been identified as an important tourism corridor and as an area to focus on production of labour intensive, mass produced goods more dependent on labour costs, affordable transport linkages such as agriculture and mining. It also provides a vital linkage to service satellites in the district and ensure connectivity with service delivery in the communities.

# 5.3.1.3 Tertiary Corridors

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

# 5.3.1.4 Rail Corridors

This corridor is intended to revitalise the railway system with the view of using if for passengers, timber and tourism transportation. The rail tourism 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.

# 5.3.2 NODES

The PSEDS identifies the importance of prioritising areas so as to facilitate the increased growth of existing centres of economic development. This also ensures that the potential for economic development within areas is supported by adequate infrastructure. This will in turn assist in challenging our investment.

#### 5.3.2.1 PRIMARY NODE – BULWER

Ingwe Municipality has commissioned a study called Socio Economic and Infrastructure baseline assessment for Nodal Development in 2010. This study identified a need for reprioritising nodes within Ingwe Municipality. Bulwer has a strong commercial, service and educational node, with a number of schools, police station, a wide variety of shops and new community facilities. Bulwer has recently been extended to include an affordable housing development and additional up-market development around the Mountain Park Hotel. Additional land to the east and south of the town has been identified for residential expansion and particularly for middle income housing.

Bulwer is prioritised as a primary node and there is a strong need to provide affordable housing to accommodate civil servants at all three settlements. It is anticipated that affordable housing will attract more government employees and private sector employees to stay permanent within Ingwe. The municipality has indicated the need to relocating their Main Offices to Bulwer as this has been proved that the majority of the community reside within this area and this area serves as the main economic and administrative hub. The district has also assisted with the Funding for the development of Bulwer Urban Regeneration Study.

#### 5.3.2.2 SECONDARY NODES - CREIGHTON AND DONNYBROOK

Creighton and Donnybrook has been prioritised as secondary nodes. There are the lower service centres that that serve the surround rural community. Services such as schools, clinic shops and pension payout points are provided. These secondary nodes are located at an accessible location within an acceptable walking distance of particular community.

Major services are located at key road intersections, a clinic, store, tribal court or taxi rank. Creighton currently accommodates the municipal offices, a school, police station as well as a variety of commercial and retail outlets. The town has recently provided an affordable housing development and is anticipating an important residential development around the golf course.

Donnybrook has a large commercial and service industrial sector as well as a police station and school. The town has a new affordable housing development and is to be extended to make provision for future residential and commercial growth. Additional land has been identified on railway land to the north of the town and to the east for residential expansion. The town boundary is to be extended to include the mission to the north. The Department of Rural Development has also made funding available for the detailed planning of this area. The outcomes of the plan will be included in the 2012/2013 Spatial Development Framework

#### 5.3.2.3 TERTIARY NODES : NCWADI, NKWEZELA, HLANGANANI AND GQUMENI

Ncwadi, , Nkwezela, Hlanganani and Gqumeni have been identified as tertiary nodes. They are lower order services mainly in a form of mobile services. They serve the surrounding densely

populated rural community. The levels of service that are normally found at or around these nodes are:

- Clinic/Mobile service
- Post Boxes
- Shops
- Secondary and Primary School
- Weekly/Mobile Services
- Taxi drop-off and collection points

In order to make the above possible, there need to be a move towards supporting services.

#### 5.4 LAND USE ZONES

The SDF is not a statutory document but is intended to provide guidelines for the use and development of land within the Municipality at a broad scale. The primary nodes of Creighton, Donnybrook and Bulwer all have proposed Town planning Schemes which need to be adopted by the Municipality and the authorities. The town planning scheme have detailed zones and land use controls which will be applied through the town planning scheme maps and documents. The SDF therefore contains the following broad categorisations of land applied to the rural areas and the primary and secondary nodes.

#### i) Urban

This zone relates to the developed urban areas of Bulwer, Creighton and Donnybrook and is intended to make provision for the full range of urban land uses and services including educational, industrial, commercial, community, government and residential. The draft town planning scheme and scheme maps should be referred to when considering proposed land uses within the three primary centres.

# ii) Agriculture and Tourism

The primary use of this zone is agriculture. However, non-agricultural uses within Ingwe need to be encouraged to create employment and generate economic development. A wide range of tourism activities and facilities should be permitted. The aim of this zone is to encourage rural-based tourism land uses in association with agriculture. However, subdivision of agricultural land should only be supported if the agricultural viability of the existing farming operations can be shown to be maintained or enhanced.

# iii) Conservation

The conservation zone includes all land which has special environmental status and economic value due to its function in providing and environmental service which contributes to the overall open space system through water courses, wetlands, grasslands, open spaces and other natural habitats. This zone

provides for the protection and conservation of ecologically sensitive, culturally and historically important sites and the natural habitats of animals, birds, or reptile species, in accordance with national laws and policies, provincial and local guidelines, strategies and programmes. It reserves land as part of a sustainable living environment by virtue of its importance in terms of bio-diversity

#### iv) Traditional Settlement

These areas fall within Traditional Authority areas under the authority of the Ingonyama Trust and the AmaKhosi and comprise land used predominantly for agricultural purposes and traditional settlement.

# v) Future Residential

The IDP identified secure tenure and the need for additional housing within Ingwe and particularly in proximity to the existing primary nodes where services and infrastructure can more efficiently be expanded.

Land for the expansion of Creighton, Donnybrook and Bulwer has been identified in the SDF process as well as the Hlanganani village which is currently used to accommodate housing for various departments.

#### vi) The Development and Subdivision of Rural Land

The following general planning principles should apply to development outside of the identified urban nodes: -

- a) Agriculture and tourism are key economic components of the Municipality's economy. While good quality agricultural land should be conserved, tourism developments and other forms of nonagricultural development need to be encouraged to provide employment and to create wealth within Ingwe and to diversify the economy.
- b) Tourist developments such as lodges, bed and breakfast establishments and a limited number of self catering chalets, aimed at supplementing farming income may be considered throughout the rural areas of the municipality.
- d) It is essential to conserve high potential agricultural land for agricultural purposes. The subdivision of prime agricultural land is discouraged and the development of this land for non-agricultural purposed should only be allowed if:
  - o It will assist in implementing Land Reform.
  - The farming unit is not viable as it stands or has been subdivided to an extent that it is no longer agriculturally viable
  - o The land has already been developed for non-agricultural purposes

• The proposed development can be shown to maintain or enhance the agricultural viability of the existing farming operations

# 5.5 IMPLICATIONS FOR LAND USE MANAGEMENT

In terms of land use management, the Spatial Development Framework is intended to form the basis for the Land Use Management System for Ingwe Municipality in order to:-

- Provide a single land use management scheme applicable to the whole Municipality;
- Simplify the scheme so that it can be used effectively by officials and members of the public;
- Provide a range of land management mechanisms to manage the use of land in urban and rural areas of the Municipality;
- Provide a land use scheme which will facilitate development;
- Reflect the aims and objectives of the Integrated Development Framework and to add value to the Spatial Framework;
- Provide a cadastral and zoning system which the Municipality can use to value and rate land.

In order to achieve the above, the Spatial Development Framework must contain a sufficient level of detail to guide the implementation of land use rights through planning schemes, while on the other hand it must identify measures to make it easier to development land and to stimulate development.

The Ingwe Land Use System has three main components:

- a) The Scheme document which contains rules and controls for the towns and rural areas of the Municipality. A set of application forms is provided separately.
- b) The Scheme Maps for the key urban areas of the Municipality:
  - a. Bulwer
  - b. Creighton
  - c. Donnybrook
- c) Land Use Management Maps including overlays and land management informants used to guide the use and development of rural land.

# 6. IMPLEMENTATION PLAN

PROJECT NAME	POTENTIAL	FINANCIAL YEAR AND ESTIMATED PROJECT COST					
	FUNDING SOURCE	11/12	12/13	13/14	14/15	15/16	
		DEVELCPN	IENT NODES				
Primary Node	1	1	-		1	r	
Bulwer Urban	Ingwe/Sisonke	R300 000					
Regeneration Plan							
Bulwer Scheme	Ingwe	R40 000					
Secondary Nodes							
Creighton Scheme	Ingwe	R40 000					
Donnybrook	Ingwe	R40 000					
Scheme							
Donnybrook	Dept of Rural	R100 000					
Precinct Plan	Development						
Tertiary Nodes							
Hlanganani Socio-	Ingwe		R40 000				
economic Survey	ingite						
Hlanganani Precinct	Ingwe		R100 000				
Plan	gitte						
Ncwadi Socio-	Ingwe			R40 000			
economic Survey	5						
Ncwadi Precinct	Ingwe			R100 000			
Plan	5						
Nkwezela Socio-	Ingwe		R40 000				
economic Survey							
Nkwezela Precinct	Ingwe		R100 000				
Plan							
Gqumeni Socio-	Ingwe			R40 000			
economic Survey							
Gqumani Precinct	Ingwe			R100 000			
Plan							
Rural Service Systems			<b>D</b>	1	1		
Socio Economic	Ingwe		R200 000				
Survey for all Rural							
Service Nodes with							
emphasis on Public Sector Services							
	1	TOURISM AND RU	ECREATIC N NODI	5			
Tourism Feasibility	Ingwe		R300 000				
Study and Business							
Plan							
Avi-tourism and	Ingwe						
Hiking (District wide)	5						
Investigation into	Ingwe						
Artwork and							
furniture making							
Ingwe Rail Tourism	Ingwe	R50 000	R108 196				
Mission Tourism	Ingwe						
Bhengu Arts Gallery	Lottery	1.6 Million					

PROJECT NAME	POTENTIAL	FINANCIAL YEAR AND ESTIMATED PROJECT COST							
	FUNDING SOURCE	11/12	12/13	13/14	14/15	15/16			
Ingwe LED and Tourism Plan Review	Ingwe	R500 000							
AREAS OF CONSERVATION SIGNIFICANCE									
Bulwer Conservation	EKZNW								
Ngwagwane	EKZNW								
Catchment									
Conservation									

# 7. CONCLUSION

The aim of the Ingwe Spatial Development Framework is to provide a broad indication of where different types of development should take place within the municipal area. The SDF provides general guidelines to assist decision-making in order to make development more sustainable. The SDF should be used in association with the land use management system prepared for Ingwe as the key mechanisms to guide public and private investment.