

9 HUMAN SETTLEMENT PATTERN

9.1 DESCRIPTION OF SETTLEMENTS

Caledon is the capital town of the region with Bredasdorp being the seat of the ODM. This is, however, only of academic importance as none of the two towns has developed fully to its allocated status. Four magisterial districts lend independent status to Caledon, Hermanus, Bredasdorp and Swellendam.

The sections below provide a brief description (in alphabetical order) of the main towns and villages in the ODM (refer to Figure 8). It is important to note that all of the following information regarding the description and history of the various towns is quoted from one source, namely the website of Overberg Tourism (www.capeoverberg.co.za).

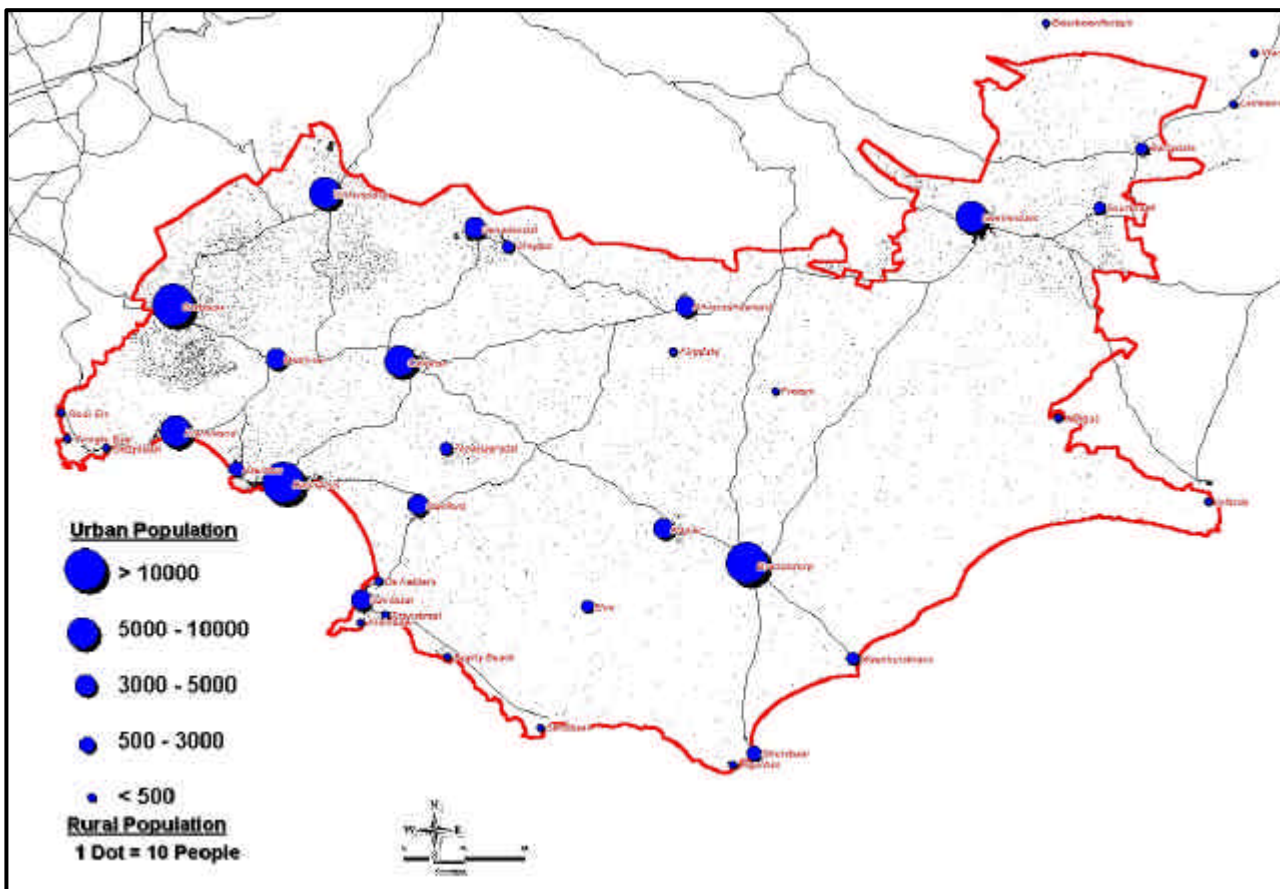


Figure 8: Settlements of the Overberg District Municipality.

a) Arniston / Waenhuiskrans

The fishing village of Arniston is situated near the southernmost tip of Africa, approximately 24 km south-east of Bredasdorp. The bay in which Waenhuiskrans/Arniston is situated was occupied before 1820 by fishermen, who called it Kassiesbaai.

The name of the village was derived from a British ship, the Arniston, which was wrecked here in 1815. Waenhuiskrans refers to a large cavern that can only be reached at low tide. Older inhabitants claim that a wagon and a span of oxen could turn in the cave.

Kassiesbaai, a well-known and attractively restored fishing village and a national monument in its entirety, is situated at Arniston/Waenhuiskrans.



Photo 3: Waenhuiskrans/Arniston (DMP).

The rugged coastline of the continental shelf dominates the fishing hamlet with its population of 600.

Three archaeological areas of importance occur near Struispunt in the Waenhuiskrans Nature Reserve.

There is a caravan park, a post office-cum-restaurant and a number of seaside chalets for lease. The Arniston hotel, built in 1935, has been expanded, renovated and refurbished over the past 14 years.

b) Barrydale

Barrydale lies at the foot of the Langeberg Mountains approximately 250 km from Cape Town on route through Montuga to Oudtshoorn past Ladismith and Calitzdorp.

The contrasts of the Klein Karoo surrounded by a fertile valley and the Tradouw Pass contributes to the fact that Barrydale is quite different from other towns and villages in the ODM.

Produce of the area include apples, pears, plums and apricots which are dried locally and are all for the export market. Prize winning grapes are pressed at the local winery. New cultivars have been introduced and the Barrydale cellars have recently attracted attention, having produced an exceptional Chardonnay Sauvignon Blanc and Merlot.

Major attractions include the Warmwaterberg Spa, about 27 km out on the road to Ladismith, the Kannaland Nature Reserve, Tradouw Pass and various hikes and walks through the natural vegetation.

c) Betty's Bay

Betty's Bay is situated adjacent the Kogelberg Biosphere Reserve along the Clarence Drive Route (R44). This small village of holiday cottages dates from the 1930's and was named after the daughter of a property developer.

Major attractions include the Penguin Reserve at Stoney Point, which is the first penguin reserve on the South African mainland, and the Harold Porter Botanical Gardens.

At Stony Point the remains of the Old Whaling Station, which was in operation from 1912 to 1930, can still be seen today. South Africa signed the treaty to ban whaling in 1976 and the mammals are starting to return.

d) Botriver

The village of Botriver lies at the foothills of the Houw Hoek Mountains, next to the N2, on route to Hermanus and Caledon. Botriver is situated in one of the most fertile regions in the Southern Cape.

The Khoi-Khoi tribes, who pastured their cattle here, called the river the 'Couga', which can be translated as 'rich in fat', or 'lots of butter'. Early European settlers journeyed here to barter for barrels of butter and they adopted the Khoi name for the river, calling it first the Botter, then later the Botriver.

The river rises south of the Theewaterskloof Dam and flows into a large lagoon, forming a marsh near its mouth, known as the Bot River Lagoon. The Bot River wetlands is home to thousands of waterfowl and South Africa's only herd of wild horses.

e) Bredasdorp

Bredasdorp is located in the southernmost region of the continent of Africa at the intersection of the R316, running from Caledon to Arniston, and the R319, running from Agulhas/Stuisbaai to Swellendam.

Bredasdorp, South Africa's first "dorp", was established in 1838 by Michiel van Breda, the first mayor of Cape Town. Van Breda and another leading personality, Pieter Voltelyn van der Byl, could not agree where the Church should be built. As a result, two churches were built, and two towns, Bredasdorp and Napier, were established in 1838 (Cape Agulhas Tourism Bureau, 2001).



Photo 4: Bredasdorp (DMP).

All essential services are available in Bredasdorp. The establishment of Denel's Missile Test Range and the SA Air Force's Test Flight and Development Centre (TFDC) in the mid-eighties near Waenhuiskrans/Arniston, and the movement of the Overberg District Municipality's Head Office to Bredasdorp, accelerated the development of the town.

The temperate mediterranean climate and limestone soil is favourable for stock-raising. Some of the best merino studs are to be found in the area. Wheat, barley, oats and dry-land lucerne are grown. Many Strandveld farmers have a substantial income from the export of wild flowers and provide employment to many people.

A number of historic sites have been identified in Bredasdorp, amongst others, the Anglican Rectory and Hall, Rhenosterkop Farm, Mountain View (Kreupelhout Drive), and Springfield Farm. The old white milkwood tree, situated on the farm Rhenosterfontein, is reputed to be between 600 and 1 000 years old, and is regarded as being the largest identified example of the species (Ritchardson, 2001).

The Heuningberg Nature Reserve is situated south of Bredasdorp. More than 270 plant species are protected in the reserve. At least 6 species are only found on the

Heuningberg range, e.g. the Bredasdorp Lily (*Cytanthus guthriei*) and the *pincushin* *Leucospermum heterophyllum*.

f) Caledon

Caledon is the main local town of the ODM and is the seventh oldest town in South Africa. The town is located at the foot of the Klein Swartberg, next to the N2.

Caledon owes its location to the presence of the hot water spring, which rise on the southern side of the mountain and which were used by the local Khoi Khoi long before they were discovered by white settlers early in the 18th century. Actual development started in 1710 when Ferdinand Appel secured a grant of the area on condition that he built a house to accommodate the sick.

Seven springs of iron rich water originally bubbled to the surface, one of which was cold and the other six thermal. The thermal springs of Caledon are not related to volcanic activity. A unique feature of the water, besides its warm temperature, is that it's free of any organic matter and has a large amount of iron in solution. Samples of Caledon's mineral spring water were submitted in 1893 to the greatest exhibition of the time, the Chicago World Fair. The water was awarded first prize as one of the world's top quality mineral waters.

Caledon is situated in a stable agricultural area, which produces barley, wheat and wool. Between 1817 and 1840 Caledon witnessed a rural revolution with the conversion of the local Afrikaner sheep to the wool-bearing Merino. The fine wool produced by the new breed brought unprecedented wealth to what had been almost entirely a subsistence farming area. Although sheep continue to play an important role in the farming economy, grain crops, and particularly barley, which is used in the production of malt for the beer industry, now contribute significantly to the wealth of the area. Southern Associated Maltsters have the largest malt-producing plant in the Southern Hemisphere.

Due to its long history various national monuments can be found in Caledon, such as the Anglican Church (Holy Trinity Church, 1855), Georgian Cottage, Bad River Bridge (1866) and Mill Street, which is, declared a Conservation Area.

g) Elim

The Elim mission station was founded in 1824 and is only inhabited by members of the Moravian Church.

On 12 May 1824 Bishop Hallbeck of the Moravian Church acquired the 2 570 ha farm Vogelfontein (bird fountain) from Johannes Schonken. On Ascension Thursday, 12 May 1825, the name was changed to Elim, meaning palm trees. The mission station was established around the original farmhouse built in 1796 by a Huguenot named Louis du Toit.

A substantial church became the pivot of the settlement and is the only monument to commemorate the freeing of the slaves in 1834. The entire town has been declared a National Monument and has also been identified as a historic site (Ritchardson, 2001). The church has the oldest working clock in South Africa (more than 200 years old). Elim also features a Slave Monument, dedicated to the emancipation of slaves on 1 December 1938.

The Geelkop Nature Reserve near Elim is renowned for the rare dwarf Elim Fynbos and is home to more than 200 plant species of which more than 13 are on the Red Data List. The vegetation of Geelkop comprises mainly of Elim Fynbos together with Acid Sand Fynbos. Some wetland vegetation and Renosterveld remnants also occur in the vicinity. In a document, commissioned by LANOK (Landelike Ontwikkelingsmaatskappy), 'A Proposed Fynbos Management Plan for Elim', management objectives are proposed for the clearing of invasive alien plants and for the conservation and development of the Geelkop Nature Reserve as well as other identified sensitive areas.

h) Gansbaai

Gansbaai is situated along the southern shores of the Atlantic Ocean some 46 kilometres from Hermanus next to the R43.

Gansbaai is named after a water hole, which was a very popular area for mountain geese. The protective water hole, which was situated in the bay where the current harbour now stands, also served as a natural harbour for local fisherman, who called it "geese hole".

A number of coastal villages are located in close proximity to Gansbaai, including Stanfordsbay, Van Dyksbaai, Kleinbaai, Franskraal, Uilenkraalsmond and Pearly Beach.

A variety of interesting places are located in and around Gansbaai. De Kelders is located approximately 3km from Gansbaai and stretches from Perlemoenbaai to the well-known "Plaat". De Kelder caves is the only freshwater cave next to the coast, which has been changed into a swimming pool. Dyer island is the breeding area for jackass penguins and seals and has therefore become a notorious feeding ground for the Great White Shark.

Danger Point, which extends into the sea for about 8km, are located between Gansbaai and Franskraal. The many reefs and sunken rocks makes it extremely dangerous for ships coming to close to shore. Hidden rocks, which lurks just below the surface off the Point was the cause of the tragedy that played out on 26 February 1852, when the legendary HMS Birkenhead met its fate.

Various conservation areas are also found in and around Gansbaai, such as Die Dam Conservation Area, Grootbos Nature Reserve, Uilenkraalsmond Conservation Area and De Kelders.

Other major attractions include the Danger Point Lighthouse (1895), the stone packed Khoi fish traps and underground limestone and Table Mountain sandstone Klipgat caves.

i) Genadendal

Genadendal, the oldest Moravian mission village in Africa, is a mere 6 km from Greyton and 30 km from the N2 on Route R406.

In 1737 missionary Georg Schmidt was sent to the Cape and settled in the Riviersonderend Valley. He taught the Khoi to read and write, but when he began to baptise his converts there was great dissatisfaction among the Cape Reformed clergy and he left the country. In 1792 the Moravians obtain permission to resume Schmidt's work.

Governor Janssens, after his visit in 1806, decided to change the name of the mission to Genadendal. Job creation at a local level was necessary and in this way the mission station developed into a self-sufficient community. Home industries, including the forging of knives (well known Herneuters) flourished, and Genadendal became an important educational centre. The first Teacher's Training College in South Africa, now a museum building, was erected in 1838.

With its strong religious roots, its industry and training, Genadendal had the potential to develop into a centre of learning and perhaps even another Stellenbosch. But this was prevented by its "Coloured" status. However, the new democratic elected town council is supporting all efforts to introduce new community projects in order to create jobs on a local level.

Major attractions include the Mission and Museum Complex, the Moravian Church, the Genadendal Printing Works, which is one of the oldest mission presses in South Africa and the Water Mill.

j) Grabouw/Elgin

Grabouw is situated some 70km from Cape Town next to the N2, in the heart of the Elgin Valley, which is an integral part of the Four Passes Fruit Route.

The town was created on the farm Grietjiesgat acquired in 1856 by Willem Langschmidt, who named the place after Grabau, the village of his birth in Germany. His wife opened a trading store and he was the bookkeeper. Later he sold parts of his farm and so began the farming community of Grabouw as it was later spelt.

It is renowned for its production of apples, pears, plums and nectarines. The Elgin district produces 60% of South Africa's total apple export crop. The farm Oak Valley also exports fresh flowers to Switzerland and Holland.

The Palmiet Pumped Storage Scheme, run by Escom, which generate hydro-electric power is also situated in close proximity of Grabouw.

Other major attractions include the Apple Museum, which illustrates the history of the Apple and Pear Industry, the Duncan's Rose Nursery, the Steenbras Dam, etc.

k) Greyton

Greyton lies at the foot of the Riviersonderend mountains, of the N2 on Route R320. This town is situated on the site of the farm Weltevreden once owned by the Cloete family and bought by Herbert Vigne. In 1854 Herbert Vigne divided his farm into agricultural erven, which he named after the then Governor of the Cape, Sir George Grey. The village remains as it was laid out.

Greyton has become a popular weekend hideaway for city folk, while many renowned artists and writers made the town their home. The various historical buildings are a major attraction and include the Post House, St Andrews Church and the Moravian Church.

l) Hermanus

Hermanus is built along the shore of Walker Bay near the southern most tip of Africa and is approximately 140km from Cape Town. It has been internationally acknowledged by the World Wide Fund for Nature (WWF) as one of the twelve best land-based whale watching sites in the world.

The town of Hermanus has an interesting history. A certain Hermanus Pieters earned his living by selling his services to the farmers as a shepherd-cum-teacher. While passing through the valley of Heme-len-Aarde he was told by lepers, who lived in the secluded valley since 1814, about the Olifantspad, which climbed over the mountains to the coast. Following the path down to the shore, Hermanus found a campsite at a spring. Each summer it became his habit to camp at the spring, which later became known as Hermanuspietersfontein. In due course more people discovered the potential of Hermanuspietersfontein and the news of its beauty, fresh water and excellent fishing spread to surrounding districts and further abroad.

In June 1891 the place became a village with its own management board and by the early 1900's Hermanuspietersfontein had been shortened to Hermanus and became popular with holiday-makers. A sanatorium was established, and a railway line was planned, bridges and the station were built, but the project was abandoned before the line was ever built.

The Old Harbour complex was declared a national monument in 1970 and in the museum, which is its nucleus, one will find a fascinating collection of historical photographs. Hermanus also offers great beaches, mountain walks and the craft market is famous for its art.

m) Kleinmond

Kleinmond/Hangklip is situated within the Kogelberg Biosphere Reserve next to the R44, along the Atlantic Ocean.

Kleinmond has been a favourite summer-holiday destination for many farmers since 1860. Farmers from Caledon and nearby areas began making this annual pilgrimage to camp near the Palmiet lagoon and the Klein Botrivier mouth, where John Pitt built the hotel in 1939.

In 1910 the original Lamloch Farm was subdivided and the brothers Kaplan bought the portion upon which they laid out the present town of Kleinmond. In 1913 Frank Cook, the owner of a small shipping company, established the Waaigat Whaling station at Stoney Point, on land belonging to the Walsh brothers, from where the Southern Cross company began its operations. The company was liquidated in 1915 and by 1930 the price of whale oil had fallen to such an extent that the whaling station finally closed.

After the death of John Walsh, the farm was sold to a consortium of Arthur Youldon, Jack Clarence and Harold Porter, who called it the Hangklip Beach Estate. Three townships were established namely, Rooi Els, Pringle Bay and Betty's Bay.

In 1948 a Town Council was elected, a highway constructed and the town developed. Today it is a popular holiday resort, ideal for whale watching.

Apart from the Kogelberg Biosphere Reserve, the Kleinmond Coastal Nature Reserve is also situated in this area. Other major attractions include the former home of the late Afrikaans author DF Malherbe, Hans the Skipper, and the Cape Hangklip Lighthouse, built in 1960.

n) Klipdale and Protem

The construction of a railway to the settlements of Klipdale and Protem and the fact that a grain elevator was constructed in the area, has attributed to the establishment and growth of the two settlements.

With the completion of the railway from Cape Town to Bredasdorp, via Sir Lowry's Pass, early this century, a branch railway was built from Klipdale (north of Napier) to a station called Portem. Portem or '*pro tempore*' means "for the time being or temporary" and it functioned only as a railway halt. The extension of the railway further into the Overberg was planned but, until today, nothing has happened (Cape Agulhas IDP, 2002).

o) L'Agulhas and Struisbaai

L'Agulhas is the southernmost town in Africa. A cairn marks the official position of the tip of Africa and it is at this longitudinal point that the Atlantic and Indian Oceans officially meet.

The town of L'Agulhas developed around the famous lighthouse at Cape Agulhas which is the country's second oldest lighthouse dating back from 1848. How it came by its name remains a mystery. One theory holds that the early Portuguese seafarers gave it this name because at this point the needles in their compasses were unaffected by magnetic deviation and bore directly upon the true poles of the earth. Another possibility is that it was named after the rocks that project from the surf offshore, like needles waiting to pierce the hull of any stray ship.



Photo 5: L'Agulhas Lighthouse (DMP).

Struisbaai, only a few kilometres away is renowned for its pristine 14 km beach, which is the longest uninterrupted stretch of white sandy beach in the southern hemisphere. There is some debate as to the origin of the name 'Struisbaai'. Some believe it means 'strawbay' referring to the fishermen's cottages that were originally built of straw. Others claim the name 'Struisbaai' is derived from the Dutch *voegelstruijs* or ostrich, which roamed the area. According to legend, Struisbaai is named for the size of its beach, which is an old Dutch word for "huge".

Struisbaai is very popular for aquatic sports. Its convenient harbour facility offers boat owners the lure of deep sea fishing. The harbour was recently been deepened and a new jetty constructed, replacing the original, built in 1859.

Major attractions include the fisherman's cottages at Hotagterklip, which are all proclaimed National Monuments. The Limestone Church is also a National Monument. The route to Struisbaai skirts around the Karsrivierlei and Soetendalsvlei, which is the largest natural body of fresh water in South Africa.

p) Malgas / Infanta

The villages of Malgas and Infanta lie on the banks of the Breede River, with Infanta situated at the mouth of the river at San Sebastian Bay and Malgas some 28km inland.

Malgas is situated near the De Hoop/Potberg Nature Reserves. The Malgas Pont opened in 1860 and is still operating today. It is the only hand-drawn pontoon in the country. During the 19th century Malgas was a busy cargo port and important inland harbour.

q) Napier

Napier is situated off the N2 on Route R316, some 58 km from Caledon and 16 km from Bredasdorp.



Photo 6: Napier (DMP).

The birth of Napier was because of differences between two well-known personalities, Mr Pieter van der Byl and Michiel van Breda who could not agree on where a church should be situated in the district. Neither would give way and thus in 1838 two villages were established, Napier and Bredasdorp. Napier was named after the governor of the Cape at the time, Sir George Napier.

Agriculture is the dominant economic activity of Napier. In addition there are a number of small industries and a significant number of inhabitants work in the construction industry. Recently various artists have made Napier their home, and their work is for sale at local businesses and at some studios. Napier is also a very popular place for retirement.

Grain farming predominates the agricultural industry in the Napier vicinity. Wheat, barley and canola are the main cultivated crops. Champion Merino sheep, which provide wool as well as meat is to be found here. This region is one of the most important wool producing areas in the land. Dairy and beef cattle farming are also practised on a large scale.

The wild flower export industry has grown vastly. The climate is also favourable for vegetable farming such as sweet potatoes.

Major attractions include the Kakebeenwa Monument, in memory of the Ossewa Trek; the Dutch Reformed Church, which was declared a National Monument in 1978; Southernmost Goldmine and the Watermill and Sundial.

r) Riviersonderend

Riviersonderend is situated on the N2, approximately 160 km from Cape Town. Its name is derived from the perennial Sonderend River at the foot of the Sonderend Mountains.

Willem ten Thyne referred to the river as the 'sine fine flumen' ('river sonder eynde'). Jan Hartogh, a horticulturist from the Dutch East India Company, referred to the river as the 'Kanna-kam-kanna', which is a Hessequa word meaning 'water endless water'. Riviersonderend, or 'Rivier Zonder End' as it was known in earlier days, was established in 1923, when Ms Edith SV McIntyre sold the farm, Tierhoek, for 6000 pounds to the church council at that time for the establishment of the local Dutch Reformed congregation.

Major attractions include the Old Trading Store, Old Mill and an Art gallery.

s) Stanford

Stanford is situated along the banks of the Klein River, 24km inland on Route R43 from Hermanus.

Stanford's history dates back to 1729 when a farmer from Caledon discovered the land and received a grazing permit to graze his cattle and sheep on the land. Over the years the grazing permit changed hands several times until Robert Stanford bought the land in 1838, when he retired from the British Army.

Robert Stanford supplied the Cape with fresh meat, fruit and vegetables from his farms. In 1849 he became the victim of anti-convict agitation protesting against the British Government's decision to settle convicts in the Cape. Although he supported the protest he had to provide the convict ship, the army and the government with supplies because he was still on half pay. This made him very unpopular and colonists and banks refused to deal with him and his labourers were chased off the farm. After his children were expelled from school and medical help was refused for his dying child, Robert Stanford went to England for help. On his return, with £5 000 and knighthood, Sir Robert Stanford found that documents were fabricated and the farm sold, against his wishes, to Phillipus de Bruyn, who was subdividing the farm into erven for a new town. Legend has that Sir Robert paid De Bruyn £50 to have the town named Stanford.

Stanford is one of the few villages in South Africa where the "common" or village market square has remained an undeveloped open space. This, as well as the interesting architecture of the houses built before 1940, is the reason why the central core of the village has been proclaimed a national conservation area by the National Monuments Council.

Stanford is a relatively small town, but has had new extensions added over the last few years. Buildings and renovations are subject to strict control measures to maintain the ambience of the "old days". There is the usual supermarket, garage, butchery, postal agency and an assortment of interesting shops. In the newly opened industrial area an assortment of businesses have mushroomed, including a nursery and a factory for processing, dying and arranging fynbos.

Major attractions include the Market Square, various churches, the Langhuis and Die Spookhuis.

t) Suurbraak

The town of Suurbraak, formerly Zuurbraak, lies on the banks of the Buffelsjagsrivier, below the mountains of the Langeberg Range, of the N2 on Route R324.

Suurbraak was established as a mission station in 1812 by the London Mission Society. The 'Algemene Sending Kerk' took it over in 1875. In 1880 the Anglican church and school was built as a result of a split in the congregation.

Due to the relative isolation and also very limited financial resources, many of the people still cook on wood stoves, although full services are available. Many of the smaller lands are still ploughed using horse drawn ploughs and agricultural work is often done manually. There are no facilities such as restaurants and accommodation in the village self.

Major attractions include the Barry Church, a national monument and Suurbraak Skrynerkers, which manufacture outstanding handmade chairs.

u) Swellendam

Swellendam, the third oldest town in South Africa, is situated at the foot of the Langeberg Mountains on the N2.

In 1743, Dutch East Indian Company authorities decided to establish civil authority over the remote frontier portion, in order to exercise control over independent frontiersmen who migrated over the Hottentots Holland Mountains. A landdrost was appointed and a Drostdy and other buildings were erected. In 1747 it was completed and the new district was called Swellendam, in honour of Governor Hendrik Swellengrebel and his wife Helena ten Damme.

A village was established opposite the Drostdy and the services provided by townfolk were indispensable to travellers and explorers, as Swellendam was the last outpost of civilisation on the eastern frontier. By the middle of the 19th century, the eastern districts had been colonised by the British settlers and Swellendam was a thriving metropolis.

Swellendam has many old buildings, some of which date from the 18th century. Other major attractions include Drostdy Museum, Mayville, Oefeningshuis (place of worship and school for freed slaves) and the Dutch Reformed Church, with its eclectic architectural features. The Bontebok National Park is situated a mere 7km from town, with the Marloth Nature Reserve also in the vicinity.

v) Villiersdorp

Villiersdorp is situated in the Elands River Valley, which lies between the Bierrivier (Beer River) mountains, also known as the Waterval Mountains, and the Baviaans Mountains.

The valley is formed by the route on the Elandsriver, which originates in the Elandskloof and is joined by many smaller streams before it reaches the endlessly meandering Riviersonderend river. The top end of this river has been dammed at the narrow gorge of Keerom to form the seventh largest dam in South Africa, the Theewaterskloofdam.

The town of Villiersdorp was named after Pieter de Villiers, a local farmer who established the town in 1843. The De Villiers family in the Villiersdorp district played a major part in the development of the area. Sir David de Villiers Graaf founded the town's well-known De Villiers Graaf High School in 1907.

As early as 1944 a teacher at the local De Villiers Graaf School realised the need for a nature reserve in Villiersdorp to conserve its flora and fauna. In 1966 the area was declared a nature reserve and an annual subsidy from the Department of Nature Conservation followed, which is now totally phased out. In 1981 Louis de Wet urged the proclamation of a nature reserve between the farm Radyn and Blokkop. His endeavours were successful and the present nature reserve of 500 ha was proclaimed in 1982.

Major attractions include St Augustine's Church; Upington House Art Gallery and Bo-Radyn, which is the farmhouse home of the founder of Villiersdorp, built in 1777.

9.2 DEMOGRAPHY

The population in the ODM is mainly distributed in and around the major settlements, with the main concentration being in and around Hermanus, Grabouw and Bredasdorp.

Table 1: Population Composition of the Overberg District Municipality.

ETHNIC GROUP				TOTAL POPULATION
African / Black	Coloured	Indian / Asian	White	
40 387	120 538	248	42 333	203 497

(Source: Census, 2001)

The estimated population of the ODM is 203 497 with the major ethnic group being the coloured population, representing some 59% of the total population of the ODM (refer to Table 1 above).

The sex structure is almost equal, with 50.46% of the population being male. The female population constitutes the remaining 49.54%.

Table 2: Current Population Structure.

	% of Population (203 497)	No of Households	Sex		Ethnic Group				Total
			Male	Female	African / Black	Coloured	Indian / Asian	White	
DMA	0.13%	44	154	102	9	142	0	105	256
Theewaterskloof	45.83%	23 050	48 444	44 824	21 275	61 406	124	10 463	93 268
Overstrand	27.38%	18 655	27 419	28 306	15 087	20 767	34	19 837	55 725
Cape Agulhas	12.86%	7 421	12 664	13 512	1 454	18 013	34	6 675	26 176
Swellendam	13.80%	7 491	14 009	14 063	2 553	20 210	56	5 253	28 072
TOTAL	100%	56 661	102 690	100 807	40 378	120 538	248	42 333	203 497

(Source: Census, 2001)

There is an ongoing and relatively strong growth rate in the district's population with the highest population growth figure occurring along the coastal area of Overstrand Municipality. This can be attributed to a growing number of pensioners and retired

persons from both the Western Cape and other provinces settling here and the influx of migrating and unemployed workers, who are attracted by the apparent growth in the area (Overberg IDP, 2002).

The Swellendam Municipality has the lowest population growth and negative growth was experienced in all three population categories. Besides the Overstrand, the Cape Agulhas Municipality shows the strongest growth in all three ethnic groups. This can be attributed to the activities of Denel and the South African Defence Force. Notably strong population concentrations are found in the Theewaterskloof and Overstrand Municipalities (Overberg IDP, 2002).

Table 3: Growth Tendencies in Overberg District Municipality.

ETHNIC GROUP	1980	1996*	GROWTH ON DISTRICT LEVEL (%)	2001	GROWTH ON DISTRICT LEVEL (%)
African / Black	9 389	22 077	135.14%	40 387	82.94%
Coloured	79 190	96 635	22%	120 538	24.73%
Indian / Asian	-	179	Unknown	248	38.5%
White	25 967	35 341	36.1%	42 333	19.78%

(*Source: Demarcation Board)

According to the Overberg IDP (April 2002), the Black population is increasing the fastest, while the rural Coloured population is growing faster than the national and provincial averages. However, contrary to other areas in the Western Cape, the Coloured population of the ODM shows a slower growth rate than the White population.

The increase in the population of the ODM creates the following challenges that should be dealt with in the process of integrated development planning (Overberg IDP, 2002):

- a) Continued delivery of services and the creation of infrastructure.
- b) Reconciliation of the expectations of a mainly older, economically inactive group and a mainly younger group with the ambition to be economically active.
- c) Increase human development initiatives in order to prevent the regional Human Development Index (HDI) from decreasing as the Black and rural Coloured population increase (the HDI of these groups are the lowest).
- d) Retaining Coloured skilled and semi-skilled labourers and younger people in the district municipal area.
- e) Stimulation of the local economy to retain people within the municipal area.
- f) Retain the momentum in growth amidst a slowdown of activities at both Denel and the SADF.
- g) Delivery of adequate infrastructure and services in areas with strong population concentrations and manage environmental impacts as a result of continuous extension.

A number of people retire in the coastal towns. This puts pressure on the municipality to ensure that future development is undertaken in a sustainable manner.

9.2.1 DEMOGRAPHIC ASPECTS WHICH CAN HAVE AN IMPACT ON FUTURE DEVELOPMENT

The different estimations of the population of the ODM can complicate the allocation of funds canalised from national and provincial government to the ODM.

Table 4 on the following page indicates the different population estimations for the Overberg as well as the percentage of the total population of the Western Cape.

Table 4: Population share of the Overberg within the Western Cape.

BASIS FOR CALCULATION	WESTERN CAPE	OVERBERG	% REPRESENTED
1996 Census Figures	3 956 875	168 021	4,25
1997/98 Municipal Estimations	3 956 875	186 046	4,70
2000/2001 Municipal Demarcation Board Figures	3 956 875	158 894	4,01
2001 Census Figures	4 524 335	203 497	4.50

A difference of 44 603 inhabitants between the 2000/2001 Municipal Demarcation Board estimations and the 2001 Census figures is substantial and represents almost six towns the size of Caledon. This could influence the amount of government funds allocated to the district municipal area, which, in turn, could impact negatively on the development and service capabilities of the municipalities within the district.

Table 5: Population of Overberg District Municipality.

	Black	Coloured	Indian	White	Other	Total
Theewaterskloof	11 055	50 665	68	9 965	2 821	74 574
Overstrand	8 292	13 741	49	14 633	753	37 468
Cape Agulhas	1 313	14 914	26	5 559	295	22 107
Swellendam	1 413	17 270	36	5 117	909	24 745
Overberg District Municipality	22 073	96 590	179	35 274	4778	158 894

(Source: Demarcation Board, 2001)

The Overberg IDP (April 2001) therefore identified the following aspects of the demography of the Overberg, which can have a direct impact on future development:

a) Census Shortages

According to the 1996 census figures the Overberg has a population of 168 021, while intensive municipal estimates conducted in 1998 already set the number on 186 046. The 2001 Census data estimate the population of the Overberg to be 203 497.

b) The impact of the population structure on the interpretation of development indicators

It is clear that the Black population is growing at the highest rate, while it is this particular group that has the lowest Index of Human Development.

Although, on average, the Coloured population grows at a lower rate than the white group, their numbers in the rural areas are increasing at an higher than average rate, while it is

under the rural Coloured population where the largest backlogs in respect of literacy are occurring.

It is important that the imbalances between the various population groups be addressed, otherwise it can be expected that the average HDI will start declining and that illiteracy levels will increase.

c) A tendency towards urbanisation

According to the 1997/98 estimates, 35% of the population of the Overberg live in rural areas and 64% in the towns. In 1980 50.3% of the population were urbanised and 49.7% were living in the rural areas. The tendency towards urbanisation was continued since 1998 and this impacts heavily on the provision of infrastructure and services in towns.

d) Composition of the population

The most important reason for population growth in the Overberg can be attributed to the influx of younger Blacks and mainly elderly whites from other provinces and the Cape Metropole.

This tendency holds particular implications for future development planning as the immigrating Black population mainly consists of economically active young men and woman looking for job opportunities, while the elder whites settling in most of the towns are looking forward to retirement and are often not in favor of development. Most of the members of the latter group are no longer economically active and are not creating jobs for themselves or for others. Meanwhile their presence creates the impression of growth, prosperity and the availability of numerous job opportunities in the towns. The expectation of both the mentioned groups should be reconciled.

e) Disproportionate population density

Diversity in the field of agriculture is influencing accompanying economic activities and plays a decisive role in settlement patterns. Larger population concentrations are therefore to be found in the fruit producing regions of the Theewaterskloof Municipality than in the livestock and wheat producing areas of the Rûens area of the Swellendam and Cape Agulhas Municipalities. Larger concentrations of inhabitants are also found in the coastal areas of the Overstrand Municipality.

9.3 SERVICES AND INFRASTRUCTURE

9.3.1 GENERAL INFRASTRUCTURAL INFORMATION

According to the 2001 census figures, there are 56 661 households present in the municipal area. Of these households, more than 80% live in a formal dwelling, while more than 14% live in an informal dwelling, e.g. in an informal / squatter settlement or a shack. Some 3% of the households live in traditional dwellings. Theewaterskloof and Overstrand has the highest percentage of informal dwellings, namely 18.7% and 14.7%.

Table 6: Housing provision in the ODM.

	GENERAL INFORMATION						
	Total Households	Total Formal Dwellings ²	%	Total Informal Dwellings ³	%	Total Traditional Dwellings ⁴	%
DMA	44	37	84.1	0	0	0	0
Theewaterskloof	23 050	17 931	77.8	4 302	18.7	812	3.5
Overstrand	18 655	15 624	83.8	2 736	14.7	291	1.6
Cape Agulhas	7 421	6 778	93.3	471	6.3	175	2.4
Swellendam	7 491	6 623	88.4	516	6.9	352	4.7
TOTAL (ODM)	56 661	46 993	82.9	8 025	14.2	1 630	2.9

(Source: Census, 2001)

The municipal estimations in respect of housing needs and housing waiting lists are most probably not a true reflection of the actual situation. This presents a problem and a proper and intensive district level survey is necessary to determine the need for land, services erven and housing. Should migration to the district municipal area continue at the present rate, it will be difficult to solve the housing question permanently (Overberg IDP, 2002).

New legislation with regard to labour and security of tenancy are contributing to the fact that many farmers are opting to settle their labourers in the nearest towns instead of on the farms. On the contrary many retired and even active farm workers prefer to settle in towns in order to increase their standard of living and live near better schools and medical and other facilities. This tendency will put pressure on infrastructure in towns and will therefore require timely planning and a shift in emphasise from e.g. mobile clinics to clinic buildings in towns. Other service providers like the SAPS should be notified in time about extensive settlements taking place in order to enable them to plan properly (Overberg IDP, 2002).

From 1 April 2002 R29 million has been allocated to the ODM, over a period of three years, for the development of housing projects in or adjacent to existing towns. In this process between 1 600 and 2 000 houses will be erected within the next year. However, areas like Nuweberg and the coastal plain between Gansbaai and Bredasdorp (Strandveld) received very little, if anything, while there exist a growing demand (Overberg IDP, 2002).

9.3.2 SERVICE STANDARDS: SEWAGE DISPOSAL

More than 8 700 households in the district do not have access to water borne sanitation. This figure represents 15.46% of the total number of households in the ODM.

² Include (a) house or brick structure on a separate stand or yard, (b) flat in block of flats, (c) house/flat/room in back yard, (d) room/flatlet not in back yard but on a shared property and (e) private ship/boat.

³ Include (a) informal dwelling/shack in back yard, (b) informal dwelling/shack NOT in back yard, e.g. squatter settlement and (c) caravan or tent.

⁴ A traditional dwelling is defined as a traditional dwelling/hut/structure made of traditional materials.

According to Census statistics, the service standards are as follows:

- a) A total of 84.52% (47 889) of all households have access to a flush toilet system, while 4.82% (2 730) of households make use of either a pit latrine or the bucket system.
- b) More than 90% of all households are equipped with some system of sewerage removal, which include either soakaway, suction, chemical or pit latrine systems. The remaining 10% does not have access to any sanitation. According to the Overberg IDP (April 2002) this is especially prevalent in the Rûens rural areas and states that it is unacceptable since proper sanitation can be directly connected to people's health standards.

Table 7: Standard of Sewage Removal.

	SEWAGE REMOVAL					
	Sanitation availability per Household					
	Flush	Chemical	Pit Latrine	Bucket Latrine	None	Total Households
DMA	37	0	0	0	0	44
Theewaterskloof	18 366	375	794	463	3 042	23 050
Overstrand	16 810	141	369	179	1 159	18 655
Cape Agulhas	6 441	16	221	202	544	7 421
Swellendam	6 235	89	471	31	664	7 491
TOTAL (ODM)	47 889	621	1 855	875	5 409	56 661
%	84.52	1.10	3.27	1.54	9.55	100

(Source: Census, 2001)

According to the Overberg IDP, the figures suggest that large numbers of households have access to waterborne sewerage systems, but in the case of the coastal towns of Overstrand and Agulhas, most of these systems are septic tanks and French drains. The problem with this situation is that these areas are under immense development pressure, whilst the sewerage systems poses a direct threat for underground water pollution.

9.3.3 SERVICE STANDARDS: WATER RETICULATION

According to Census data, the majority of households (67.34 %) have access to running water from within their dwelling, while 18.61% have only access to water points situated on their erven. The amount of households with water points on their erven have increased with 49% since 1996, while the number of households with access to running water from within their dwelling have increased with almost 34% during the same period.

Approximately 7 957 households rely on public taps, boreholes, natural systems (springs, rain-water, dams, rivers, vendors) and other sources of water (refer to Table 8 on the following page).

Table 8: Standard of Water Reticulation.

	WATER RETICULATION						
	Number of Households with Access to Running Water						
	Water Dwelling (tap)	On Site (tap)	Public tap < 200 m	Public tap > 200 m	Borehole	Natural	Other
DMA	33	0	0	0	0	0	0
Theewaterskloof	14 071	4 683	1 808	2 281	18	28	157
Overstrand	13 433	2 856	1 498	686	4	18	164
Cape Agulhas	5 750	1 107	409	113	4	0	44
Swellendam	4 868	1 899	265	217	0	84	159
TOTAL (ODM)	38 155	10 545	3 980	3 297	26	130	524
%	67.34	18.61	7.02	5.82	0.05	0.23	0.93

(Source: Census, 2001)

Surface and groundwater is supplied by the Water Board. The problem present in some areas is the lack of safe potable water in some areas. Some marginalized rural communities such as Klipdale, Protem and Rietkuil, like their urban counterparts, do not receive 6 kl free water per month, while their supply may be cut as a result of non-payment (Overberg IDP, 2002).

Gansbaai, with the exclusion of Pearly Beach, has sufficient water, while Hermanus is in crises due to the fact that surface water sources are being utilised over maximum capacity. Groundwater is available, but legal stipulations in respect of reserves and costs will have an impact on sourcing and delivery (Overberg IDP, 2002).

Stanford has poor surface water, but rich underground sources. However, they cannot source more water from the Kleinerivier system without ecological danger to the marsh systems and the lagoon (Overberg IDP, 2002).

The towns of Hangklip/Kleinmond has no limitations in terms of available water, but do have with respect to sufficient infrastructure. In most of the Kogelberg towns there are losses on supply and intake, while existing dam capacity is being used to the maximum (Overberg IDP, 2002).

Overberg Water supplies Caledon and Bredasdorp with water. Caledon also has its own boreholes and water supplies are adequate at the moment. Bredasdorp also has its own dams, boreholes, as well as strong underground water sources (Overberg IDP, 2002).

Riviersonderend and Genadendal has enough water available. A few new farmers have however experienced problems with sufficient water for irrigation in the Gendadendal area. Grabouw did not make provision for the migration of people to the town. Currently, twice the allowed percentage of water is withdrawn from the sources and utilised (Overberg IDP, 2002).

The Klipgat system is a strong source, with various alternative sources, including the Buffeljagts River, which can also provide the Swellendam environs with water. Overberg Water also supplies water in some areas. In Barrydale major water shortages is however experienced (Overberg IDP, 2002).

In the rural areas existing water sources are supplemented by Overberg Water which supplies purified water for the use of households and livestock to a rural area of 5 800 sq km through a pipeline of 1 680km. The following rural supply schemes are in existence (Overberg IDP, 2002):

- a) Riviersonderend Scheme - water from Theewaterskloof Dam.
- b) Buffeljagts Scheme - water from Buffeljagts Dam.
- c) Elandsriver Scheme - water from Elandskloof Dam.
- d) Rûensveld East Scheme - water from Theewaterskloof Dam.
- e) Rûensveld West Scheme - water from Theewaterskloof Dam.
- f) Rûensveld South Scheme - water from Theewaterskloof Dam.

The three Rûensveld schemes will reach maximum capacity within the next two years. In 1985 the small stock units in the Overberg counted 950 000, while in 2000 the figure was 1,8 million. The growth can be directly attributed to the water supplied through the three schemes. Should extensions and adjustments not be planned and implemented timely it will directly affect the agricultural sector and the Overberg economy and will lead to stagnation. Farmers who are not fully utilising the water allocated to them make the problem even worse. This incurs losses of up to R1 million per year for Overberg Water (Overberg IDP, 2002).

9.3.4 SERVICE STANDARDS: REFUSE REMOVAL

The majority of households in the district have access to refuse removal, either by the local authority or by their own arrangements. Almost 81% of households are serviced by local authorities either once a week or less often. Approximately 9 040 households make their own arrangements for refuse removal while only 602 (1.06%) households has no access to refuse removal.

Table 9: Standard of Refuse Removal Services.

	REFUSE DISPOSAL				
	Number of Households with Access to Refuse Disposal Services				
	Local Authority (once a week)	Local Authority (Less often)	Communal refuse dump	Own refuse dump	No refuse disposal
ODM	31	3	0	0	0
Theewaterskloof	16 698	792	917	4 229	411
Overstrand	16 419	117	303	1 752	65
Cape Agulhas	6 213	21	29	1 133	27
Swellendam	5 378	8	80	1 926	99
TOTAL (ODM)	44 739	941	1 329	9 040	602
%	78.96	1.67	2.35	15.96	1.06

(Source: Census, 2001)

Tonnage is not available in ODM. Industrial waste is dumped at the plant of SA Malsters in Caledon, at the fruit processing plants in the Theewaterskloof and at fish processing plants in Overstrand. Smaller quantities are dumped in some of the other towns (Overberg IDP, 2002).

During February 2002 ODM put a new regional waste disposal site at Karwyderskraal between Caledon and Hermanus into service. Presently it is handling a large quantity of refuse and waste from the Overstrand area and will, after the completion of all transfer stations, handle waste from that area, as well as some from Theewaterskloof. The ODM is financing the project (Overberg IDP, 2002).

9.3.5 SERVICE STANDARDS: STORMWATER MANAGEMENT

The largest backlogs, with regard to drainage systems, exist mainly in the coastal towns of the Overstrand and Agulhas Municipalities and in the rural settlements. The lack of a drainage system can lead to the pollution of underground water sources, especially in the coastal towns. The construction of proper infrastructure will, however, be costly as a result of the rocky terrain.

Table 10: Standard of Stormwater Reticulation.

	STORMWATER RETICULATION			
	Percentage			
	Open Ground	Open Cement	Piped	No Service
Cape Agulhas	34.3	0	65	21.7
Overstrand	58.5	18.9	10.45	55.6
Swellendam ⁵	/	/	/	/
Theewaterskloof	60.9	17.1	30.2	17.8

(Source: Overberg IDP, 2001)

9.3.6 SERVICE STANDARDS: CONDITION OF STREETS

In the coastal towns of Overstrand and Cape Agulhas and in smaller rural towns like Genadendal, Elim and Greyton large percentages of dirt (graded) streets occur. The residents experience problems with dust and flooded streets due to a lack of formal drainage systems, but they do not ask for tarred roads.

Table 11: Condition of Streets within the Overberg District Municipality.

	STREETS		
	Percentage (%) of Streets		
	Tarred Road	Gravel Road (Built)	Dirt Road (Graded)
Cape Agulhas	82,2	7,5	7
Overstrand ⁶	24,5	87,75	37,8
Swellendam ⁷	12,5	100	88
Theewaterskloof ⁸	25,7	7,5	63,3

(Source: Overberg IDP, 2001)

⁵ Barrydale is 100% serviced by open ground stormwater channels, while Suurbraak is serviced by 100% open cement channels. Buffeljagtsrivier, Malgas, Infanta and Stormsvlei do not have stormwater systems.

⁶ Figures exclude Greater Hermanus and Greater Hanklip/Kleinmond and include Stanford, Greater Gansbaai and Buffeljagtsstrand.

⁷ Figures exclude Swellendam Town (20% gravel and 80% tar).

⁸ Figures for Villiersdorp is not available.

9.3.7 SERVICE STANDARDS: ELECTRICITY

ESCOM provides electricity to all the towns and rural areas. Some towns manage the distribution of power within their municipal boundaries. The region, as is the case in most of the country, has a well-developed electricity grid, which can supply all the power that the region as a whole requires.

The 2001 Census estimates that a total of 47 443 households are provided with electricity. This constitutes some 83.73% of all households. The remaining 16.28% do not have access to local electricity or gas and have to rely on candles and paraffin for their energy requirements as well as wood for fuel.

Table 12: Provision of Electricity.

	ELECTRICITY Availability of Electricity per Household					
	Local Electricity	Gas	Paraffin	Candles	Solar	Other
DMA	28	9	0	0	0	0
Theewaterskloof	18 532	52	1 962	2 421	10	64
Overstrand	15 513	52	1 166	1 873	5	46
Cape Agulhas	6 777	13	28	590	7	10
Swellendam	6 593	13	39	836	11	8
TOTAL (ODM)	47 443	139	3 195	5 720	33	128
%	83.73	0.25	5.64	10.10	0.06	0.23

(Source: Census, 2001)

9.3.8 SERVICE STANDARDS: TELEPHONE ACCESS

The Municipality estimated that 98.41% of households in the region has access to a telephone. Of these 55 766 households, only 20.90% has a normal telephone inside their dwelling, while 42.15 % has to seek such services outside of their own home. A fairly large percentage of households have a cell-phone in their dwelling (12.06%), while an even larger percentage have both a cell-phone as well as a normal telephone in their dwelling (23.30%).

A total of 41% has this facility nearby their dwellings, while only 1.15% of households are not located near a telephone. Although the percentage of households with this facility not nearby their dwellings have decreased by some 33% since 1996, the total number of households with no access to telephone facilities have decreased by some 39.6%. A total of 895 households (1.58%) do not have any access to a telephone, 589 less than in 1996.

Table 13: Provision of Telephone Services.

	TELEPHONE Availability of Telephone Services per Household							
	Dwelling only	Cell-phone	Dwelling & Cell-phone	Neighbour	Public Phone	Other Nearby	Not Nearby	No Access
DMA	0	8	10	0	14	0	0	3
Theewaterskloof	4 326	2 275	4 123	1 604	9 189	900	266	360
Overstrand	4 192	2 934	5 505	605	5 083	178	123	37
Cape Agulhas	1 976	816	2 025	835	1 495	123	42	115
Swellendam	1 349	803	1 541	668	2 212	321	219	380
TOTAL (ODM)	11 843	6 836	13 204	3 712	17 993	1 522	650	895
%	20.90	12.06	23.30	6.55	31.76	2.69	1.15	1.58

9.3.9 SERVICE STANDARDS: HEALTH SERVICES

People's ability to enjoy a worthwhile quality of living is largely determined by their physical and psychological well-being. With the exception of the aspects such as employment and income levels, this is influenced by levels of social development and includes safety and security, sport and recreation, health and welfare services, opportunities for education and training, etc.

Generally there are an adequate number of doctors. However, towns such as Barrydale, Botrivier, Genadendal, Suurbraak and Stanford do not have the services of full-time medical doctors. In many cases a doctor from a nearby town visits the town once or twice a week. No services are available during the night. The situation is affecting the most marginalized groups of the population because they do not have their own transport to visit doctors in other towns (Overberg IDP, 2002).

Various other services such as dental and specialist services are under-provided for. Although the regional average for nursing staff projected an image of sufficient provision in 2000, the rural areas were under-provided for and urban areas over-provided. There was an increase of 314,4% in the services rendered by the district municipality's mobile clinic. This can be attributed to population growth, free health services for pregnant women and young children and general economic conditions. Provincial hospitals are situated in Swellendam, Bredasdorp, Hermanus and Caledon and a small private hospital in Hermanus (Overberg IDP, 2002).

The differences between various racial groups are obvious and are indicative of noticeable imbalances in standards of living. This is further illustrated by the occurrence of TB, which poses the largest health threat of all notifiable diseases within the region. In 1999 the clinic staff were unanimous in their supposition that TB was on the increase in almost every part of the district municipal area. The tendency is continuing and is directly affected by people's lifestyle and poverty (Overberg IDP, 2002).

Most farm workers are excluded from elderly care, childcare and parental guiding, etc. As a result of distance and transport problems, the services available in towns are not at the

disposal of these workers. Not only does this contribute to the group's general suffering, but it also have a negative impact on efforts to enhance their HDI.

9.3.10 SERVICE STANDARDS: SOCIAL SERVICES

According to the Social and Service Index⁹ of the Overberg, the entire Municipal Area falls within the highest development category of 29 to 37. Despite the relatively high level of development, the demographic tendencies and the occurrence of poverty, environmental impacts limited financial resources, etc. challenge the provision of infrastructure and the delivery of services (Overberg IDP, April 2002).

Social services are provided mostly on a part-time basis, with no social workers available to take care of urgent problems. Workers are often so bogged down by individual cases that they do not have time left for development actions.

Table 14: Social Services in the ODM.

SERVICE AREA	NUMBER OF FACILITIES	NUMBER OF PROFESSIONALS	RATIO PER POPULATION
Cape Agulhas	12	7	1:3 158
Overstrand	6	6	1:6 245
Swellendam	2	2	1:12 374
Theewaterskloof	13	17	1:4 387
TOTAL (ODMA)	33	32	1:6541 (Average)

(Source: Overberg IDP, 2002)

Only 0,53% of the region's population are housed in old age homes. Two of the homes were originally developed to house only Blacks and Coloureds and are continuing to do so. The other homes are fully integrated, but are still housing a majority of Whites. Elderly Coloured and Black citizens are often housed under extremely unsatisfactory conditions in the backyards of the homes of their children.

Table 15: Old Age Homes in the ODM.

SERVICE AREA	NUMBER OF FACILITIES	NUMBER OF PERSONS SERVED
Cape Agulhas	2	149
Overstrand	2	264
Swellendam	1	122
Theewaterskloof	6	315
TOTAL (ODMA)	11	850

(Source: Overberg IDP, 2002)

ODM established 9 nursery school playgroups for infants from previously disadvantaged communities throughout the municipal area. A small percentage of infants from such communities are already involved and the need for more similar affordable facilities is enormous.

⁹ The Social and Services Index measures the area against social variables such as the poverty gap, teacher/learner ratio, dependency ratio, population density and housing.

The attention paid to projects for the youth and disabled persons is inadequate. There are no shelters for street children or facilities for detaining youth offenders and this is creating problems for the SAP. There are three houses for children and disabled persons in the ODM, i.e. Rotary House in Kleinmond (24 committed children), Elim House for mentally disabled persons in Elim and Camphill Institution for adult disabled persons outside Hermanus. A larger percentage of the inhabitants of these institutions are from outside the district municipal area. The relation of 1 occupational therapist to 31 777 members of the population contributes to the fact that sufficient attention cannot be paid to special programmes for the disabled and the elderly (Overberg IDP, 2002).

There are no identified safe houses for victims of such crimes or shelters for destitute people and street children in the ODM. There is a considerable need for shelters for destitute people in the towns along the N2.

9.3.11 SERVICE STANDARDS: CRIME AND SECURITY

According to the Overberg IDP (April, 2002) there are 4 magistrate's courts and 18 police stations in the region. Although there is a police station in each of the towns, some them are closed during the night.

In 1998 the Overberg had 467 police officials, which represented a ration of 1:398 police members to population, in contrast to a national ration of 1:322. The under provision of manpower is further aggravated by a seasonal influx of holidaymakers to the coastal towns and too few vehicles and other equipment (Overberg IDP, 2002).

From reported crime statistics it is evident that the most threatening problems in the region lies in the field of home burglaries (20.2%), common assault (18.8%), assault with the intent to do grievous bodily harm (16.3%) and general theft (17.1%). The first and latter mentioned stand in direct relation to people's living conditions and are further instigated by poverty and unemployment. Should the latter two factors not be alleviated or permanently addressed, it will be almost impossible to prevent burglaries and theft. In most cases of assault, alcohol and drugs play a role and many of these incidences occur within family context (Overberg IDP, 2002).

The Overberg's most important crimes are not regarded as national priority crimes and therefore few resources are made available to combat it. Only 1.6% of crimes reported in the region are related to murder and 2.1% to rape (Overberg IDP, 2002).

The problem with poaching of marine resources is well known along the entire coastline and should receive urgent attention.

9.3.12 SERVICE STANDARDS: SPORTS AND RECREATION

Although there is an extended range of public, private and school sports facilities in the region, these facilities are not equally distributed and provided for amongst all towns and residential areas within towns. Some of these sport facilities are private clubs and this makes it unaffordable for the poorest component of the community (Overberg IDP, 2002).

According to the Overberg IDP (April 2002) there is an imbalance between the provision of sports and recreational facilities between urban and rural areas, with a settlement such as Tesselaardsdal without any facilities and smaller towns like Botrivier and Elim with hardly any facilities. No town within the ODM has adequate facilities to host large district level

sporting events, while almost all rugby facilities are being utilised for cricket and soccer. In this case, soccer is not reconcilable with rugby fields and contribute to deterioration of such fields. There is an enormous need for multi-purpose community centrums that are affordable for utilisation by especially black and coloured communities.

The Overberg IDP (April 2002) states that communities should take responsibility for the management, protection and up-keep of sports and recreational facilities, otherwise it will be almost impossible to satisfy the demand for recreational facilities, e.g. play parks for children. Marginalized communities are also still unaware of the recreational opportunities offered by unorganised sports and outdoor recreation that nature offers.

9.3.13 SERVICE STANDARDS: PUBLIC TRANSPORTATION

A large percentage of the formerly disadvantaged coloured and black communities do not have access to private transportation, while the rural farm worker population is almost entirely dependant on farmers to supply transport to the nearest towns. Bus services are sparse and often only available in the larger towns and along the few bus routes, there are no proper bus stops. Taxis are available in almost every town and are rendering an essential service, but tariffs are high and most of the time unaffordable. The absence of a reliable and affordable transport system contributes to the abuse of ambulance services and heightens the need for casual transport of patients to the larger centrums.

The relapse of rail services between Cape Town and Bredasdorp and between Worcester and Swellendam caused the poorest part of the population to loose a further means of transport. Transport available to learners and students is insufficient and in most cases unreliable, not roadworthy and dangerous.

10 ECONOMIC ENVIRONMENT

10.1 SOCIO-ECONOMIC STATUS

Overall, the Western Cape has the highest Human Development Index (HDI) compared to South Africa's other provinces. The composite Social and Services Index of the ODM is one of the highest. However, an analysis of the Human Development Index¹⁰ (HDI) and poverty gaps in the district shows that there are still aspects that need urgent attention in order to bring all inhabitants on an even scale of development and competitiveness.

Table 16 below illustrates the HDI of the ODM and the inequalities between the various population groups. The table also indicates the percentage that the ODM's HDI represents in the provincial and national index.

Table 16: Human Development Index (HDI) and Poverty Gap.

Area	Poverty Gap (RM)	Provincial % Share	National % Share	Black (%)	Coloured (%)	White (%)
Theewaterskloof	12 126	2,29	0,08	0,35	0,48	0,94
Overstrand	2 809	0,53	0,02	0,42	0,53	0,93
Cape Agulhas	4 200	0,79	0,03	0,28	0,47	0,94
Swellendam	6 341	1,20	0,04	0,34	0,44	0,95
Regional Average				0,34	0,48	0,94
Provincial Average				0,21 - 0,53	0,36 - 0,68	0,91 - 0,96

(Source: Overberg IDP, 2002)

The figures used to determine the HDI and Poverty Gaps are those of 1995. Since then the levels of service delivery, infrastructure and housing were raised considerably and it is therefore possible that the position of mainly the Black and Coloured population may have changed. Even so, the low literacy level is forcing the index down.

Some of the most important contributing factors to the disparities in the HDI of the Overberg are the following:

- Few job opportunities are available, while the apparent wealth in the fruit producing areas and the coastal area of Overstrand are creating unrealistic expectations under Black immigrants.
- The seasonality of the agricultural sector, especially in the fruit producing areas, contribute to seasonal unemployment.
- Large differences in infrastructure between towns, rural areas and residential areas.
- An economy that is not diversified to its full potential.

Although, a higher life expectancy is indicated by the fact that the older race groups are increasing, the income and education discrepancies (especially in the more rural areas) between the different race groups need to be addressed before a rise in the HDI could be expected.

¹⁰ The HDI is a composite index reflecting life expectancy, education and income. This index was developed by the United Nations Development Programme and provides an internationally comparable measure of people's ability to communicate, to participate in the community and to have sufficient means to afford a decent living.

Table 17 below illustrates the socio-economic distribution per age group between the different municipalities in the ODM. The table also indicates the percentage of the various age groups in relation to the District Municipality. In this table it is evident that the ODM represents a fairly unevenly based population with more than 81.76% of the population being younger than 49 years and the remaining 18.24% being older than 49 years of age.

Table 17: Age Structure of ODM.

	INDIVIDUALS PER AGE GROUPING						
	0-9	10-19	20-29	30-49	50-64	65-76	Over 80
DMA	27	65	57	75	21	11	0
Theewaterskloof	17 531	16 840	17 827	28 410	8 853	3 189	618
Overstrand	8 814	8 282	10 127	14 474	8 102	4 946	980
Cape Agulhas	4 705	4 905	3 465	7 557	3 362	1 802	383
Swellendam	5 547	5 222	4 435	8 012	3 036	1 520	300
TOTAL (ODM)	36 624	35 314	35 911	58 528	23 374	11 468	2 281
%	18	17.35	17.65	28.76	11.49	5.64	1.12

(Source: Census, 2001)

It is imperative that the illiteracy and functional illiteracy level of the ODM must be addressed as soon as possible. Functional illiteracy is indicative of an inability to understand abstract information and usually occurs when a person has completed less than seven years of formal education and at least passed grade seven. According to table 18 below, some 20,6% of the population of the ODM are functionally illiterate while 4% are completely illiterate. This is directly connected to low income levels and will push the HDI further down if this problem is not attended to. A total of 21% of the population of the ODM has some secondary education, while only 13% have completed Grade 12.

Table 18: Education Levels.

	MUNICIPAL REGION Illiteracy Levels					
	DMA	Theewaters- kloof	Overstrand	Cape Agulhas	Swellendam	TOTAL (ODM)
% Totally Illiterate	0	2.6	0.8	0.5	0.1	4
% Functionally Illiterate	0.01	10.75	4.15	2.53	3.15	20.6
Some secondary	0.01	9.79	6.41	2.58	2.42	21.21
Complete Grade 12	0.02	4.35	5.64	1.59	1.53	13.13
Higher Education	0.03	1.44	2.55	0.94	0.65	5.61

(Source: Census, 2001)

More than half of the inhabitants of the district municipal area are children and elderly persons, the majority of whom are most probably economically inactive. In 1990 the regional dependency ratio was 36,5%, in 1992 46% and in 2001 51,9%. The dependent age groups are seen as children between 0-15 and elderly people over the age of 65. The increase in the dependency ratio and the number of people that are economically inactive will eventually contribute to higher levels of poverty and a lower HDI rate.

Measured against the census figures in Table 19, it is clear that the ODM represents some very poor people. A total of 1 352 (0.66%) does not have any form of income, while 3.68% of the economically active population earn less than R400 per month and more than 20% of this population earn between R401 and R1 600 per month.

Table 19: Monthly Income Level.

	MONTHLY INCOME 'R'					
	DMA	Theewaters-kloof	Overstrand	Cape Agulhas	Swellendam	TOTAL (ODM)
No Income	3	458	590	207	94	1 352
<R400	0	3 459	1 791	969	1 271	7 490
R401-R800	3	13 616	4 431	2 236	3 225	23 511
R801-R1600	13	9 743	5 440	2 283	2 032	19 511
R1601-R3200	28	3 649	2 960	1 313	1 042	8 992
R3201-R6400	46	2 479	1 910	925	817	6 177
R6401-R12800	28	1 199	939	537	367	3 070
R12801-R25600	10	286	378	157	96	927
R25601-R51200	3	93	121	72	31	320
R51201-R102400	0	49	52	32	16	149
R102401-R204800	0	13	22	15	12	62
>R204801	0	12	10	11	3	36

Measured against the figures of the Demarcation Board, the Black population of the Overberg grew with 135,1% from 1980 to 2000. It is the tendency that these new immigrants, in the hope of finding jobs, settle in the fruit growing areas or in the coastal towns. The ongoing crisis in the fruit industry and the predominant elderly and economic inactive status of the other inhabitants of the coastal towns entails that jobs are not always available. Thus, towns like Grabouw, Villiersdorp and Hermanus are struggling with unemployment and informal settlement.

10.2 CURRENT ECONOMIC ACTIVITIES

10.2.1 CURRENT ECONOMIC ACTIVITIES AND URBANISATION

Grabouw, Swellendam and Hermanus each play an important role within their respective environments. However, not one of the various towns in the ODM has developed further than the others. This can be attributed to the close proximity and dominant effect of the Cape Metropolis that lures away buying power. Inhabitants of the western part of the ODM tend to travel to Somerset West and Strand for shopping and those from areas around Swellendam and Barrydale go to Worcester (Overberg IDP, 2002).

The coastal towns focus primarily on tourism, the utilisation of marine resources and trade activities, while inland towns are mostly service centres for the agricultural sector. The growth potential of the coastal towns are therefore by far larger, while the other towns are directly affected by a recession in the agricultural sector.

According to the 1997/98 estimations 35,2% of the Overberg population are living in rural areas and 64,8% in towns. This is in contrast with the 1980 figures of 50,3% and 49,7% respectively. The tendency towards urbanisation is enduring and is accelerated by the problems experienced in the agricultural sector.

Agricultural diversity is influencing the accompanying economic activities and plays a decisive role in settlement patterns. Larger concentrations of the population are living in the fruit growing areas of the Theewaterskloof Municipality and around Swellendam. In contrast population density in the Rûens area of Swellendam and Cape Agulhas Municipalities is sparse.

The following chapters provide a summary of the economic profile of the Overberg Region, as well as a summary of the major economic sectors of the Overberg.

10.2.2 ECONOMIC STRUCTURE

In 1995 the Overberg Tress Index stood on 88,7%. A zero index figure is representative of a completely diversified economy, while a high level of concentration in a few sectors is indicated by figures closer to the level of 100. Diagram 2 below illustrates the undiversified level of the regional economy (Overberg IDP, 2002).

The agricultural sector is by far the largest shareholder in the GGP. However, from 1991 to 1995 this share decreased with 3,7%, while the figure for trade increased with 2,3%. The latter sector includes catering and the growth can in all probability be attributed to growth in tourism. During the same period the financial sector, including the property market, grew by 1% and the services sector by 31,4%. It can be attributed to the strong growth in the property market in the coastal areas (Overberg IDP, 2002).

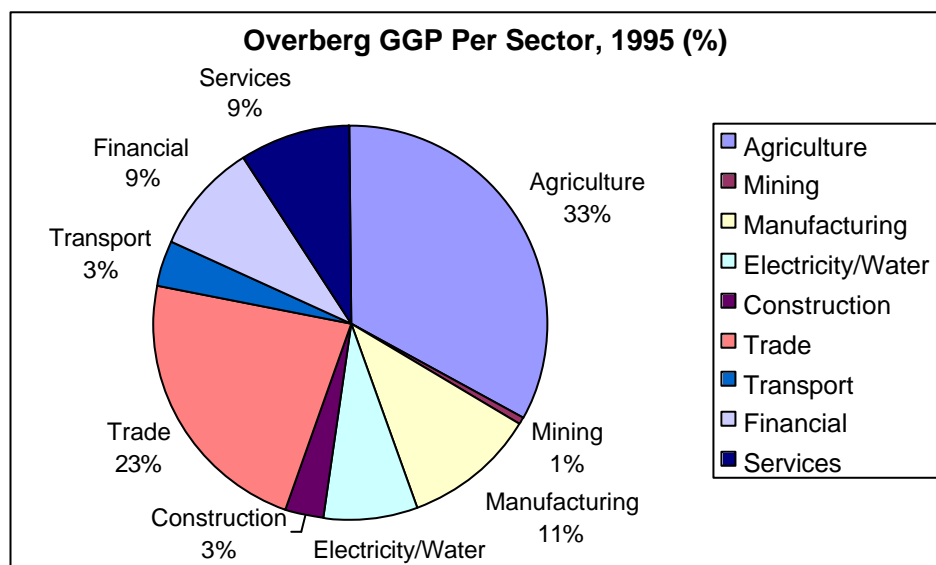


Diagram 2: Overberg GGP per Sector (R'Million).

According to Census statistics the sector which provides the most employment opportunities in the district is the agricultural industry, which employs approximately 26 286 people. The second largest sector is the trade industry, which employs almost 9 419 people, followed closely by the social services industry with approximately 9 345 people employed.

From 1991 to 1997/1998 the population of the Overberg increased according to estimates by 22,8%. From 1993 to 1998 the regional economy, based on real turnover, showed an average growth rate of 14,5%. Growth in population thus overshadowed economic growth by 8,3%. This is a further warning signal. It can be expected that unemployment will increase in the future.

Table 20: Employment per economic industry.

	EMPLOYMENT PER INDUSTRY					
	DMA	Theewaters-kloof	Overstrand	Cape Agulhas	Swellendam	TOTAL (ODM)
Agriculture ¹¹	7	17 948	2 926	1 763	3 642	26 286
Mining	0	21	30	22	4	77
Manufacturing	0	1 342	1 332	622	348	3 644
Utilities ¹²	0	151	48	49	60	308
Construction	4	1 608	2 539	883	488	5 522
Trade	8	3 082	3 628	1 540	1 161	9 419
Transport & Communication	12	625	421	274	229	1 561
Business ¹³	13	1 128	1 410	496	378	3 425
Social Services	87	3 593	2 817	1 689	1 159	9 345
Private Households	0	0	0	0	0	0
Not defined	0	1 526	1 928	820	840	5 114
Undetermined	3	4 041	1 566	593	695	6 898
TOTAL (ODM)	134	35 065	18 645	8 751	9 004	71 599

(Source: Census, 2001)

The various employment-generating sectors in the ODM are the following:

10.2.3 AGRICULTURE

Agriculture provides the largest percentage of employment in the region with 36.71% (26 286 employees) of the total labour force of the ODM working either in the agricultural, fishing, hunting or forestry sectors. It is estimated that the contribution of agriculture to the GRP is 33%.

Agricultural growth sectors in the ODM include the following:

Dryland commodities: Wheat and canola are the most important commodities found throughout the ODM.

Barley: The Overberg region is an important production area for barley in South Africa. Southern Associated Maltsters, which is the largest malt-producing plant in the Southern Hemisphere processes 140 000 tonnes of barley annually.

Deciduous fruits: More than a third of the country's exported deciduous fruit is produced in the Elgin Valley. Appels, pears, plums and nectarines are grown at Elgin, Grabouw, Bot River, Houw Hoek, Vyeboom, Villiersdorp and the Hemelen-Aarde Valley. Some of the country's largest fruit processors are found in Grabouw, including Appeltise, Kromco, Two-a-Day and Elgin Fruit Juices.

¹¹ Agriculture includes agriculture, hunting, forestry and fishing.

¹² Utilities include electricity, gas and water supply.

¹³ Business includes financial, insurance, real estate and business services.

- Youngberry Industry:** Swellendam is the largest youngberry growing area in the world and is most famous for its youngberry liqueur.
- Vegetables:** Caledon region is one of the largest onion producing areas in South Africa. The Caledon Globe is well known for its extended shelf life and is an excellent export commodity.
- Viticulture:** Superior quality wines are produced in, amongst other, the Elgin Valley, Hemel-en-Aarde Valley and Bot River areas. New viticultural areas such as Elgin and Walker Bay have been opened up in this cool southerly district. The latter near the seaside town of Hermanus, is now the source of some of South Africa's finest, Chardonnay, Pinot noir and Sauvignon blanc.
- Livestock & Wool:** The ODM may be considered the cradle of the South African wool industry and is still the most densely stocked wool-sheep area in the country. Merino sheep farming constitutes an important sector in the Theewaterskloof area, for example, especially since 80% of the wool production is exported. Angora goat farming is also practised on a smaller scale and small herds of beef cattle are found. The Bredasdorp area are known for its quality wool and mutton.
- Dairy Farming:** The region enjoys a comparative advantage as it has large planted grazing. Dairy products from the Theewaterskloof region are marketed by the Bonnita Premier Group, while other areas within the region send their milk products to the Bonnita Cooperative in Bonnivale.
- Ostrich Farming:** Ostriches have been an integral part of the Swellendam and Bredasdorp region for the past decade. Single pairs are often stocked together with sheep to combat stock theft. The birds are also plucked on farms and processed at the Bredasdorp and Oudtshoorn abattoirs.
- Bee Farming:** Bee farming provides an income to bee farmers by producing honey and through the rental of hive to fruit farmers for pollination.
- Floriculture:** The most important commodities are cutflowers and dried flowers, with fynbos being the nucleus. The Elgin Valley produces 40% of the Western Cape's cut flowers. Protea and fynbos farming exports exceed R45 million per year.

Low rainfall, limited amount of water and generally poor soils, makes farming in the Overberg District Municipality a challenge (refer to Figure 9 for agricultural land-use in the ODM). The agricultural sector is fairly diversified with the fruit and vegetable industry, agronomy and stock-farming being the largest shareholders. Within the regional context the agricultural sector is further diversified per geographical area, with the most extensive contribution in the field of agronomy coming from the Theewaterskloof, Cape Agulhas and Swellendam areas, the largest contribution in deciduous fruit and grapes from Theewaterskloof and Swellendam, while stock-farming is almost evenly spread between Theewaterskloof and Cape Agulhas. Although the agricultural sector, until lately, played a very insignificant role in the economy of the Overstrand, the situation is rapidly changing as a result of development of the fruit industry, viticulture and fynbos cultivation.

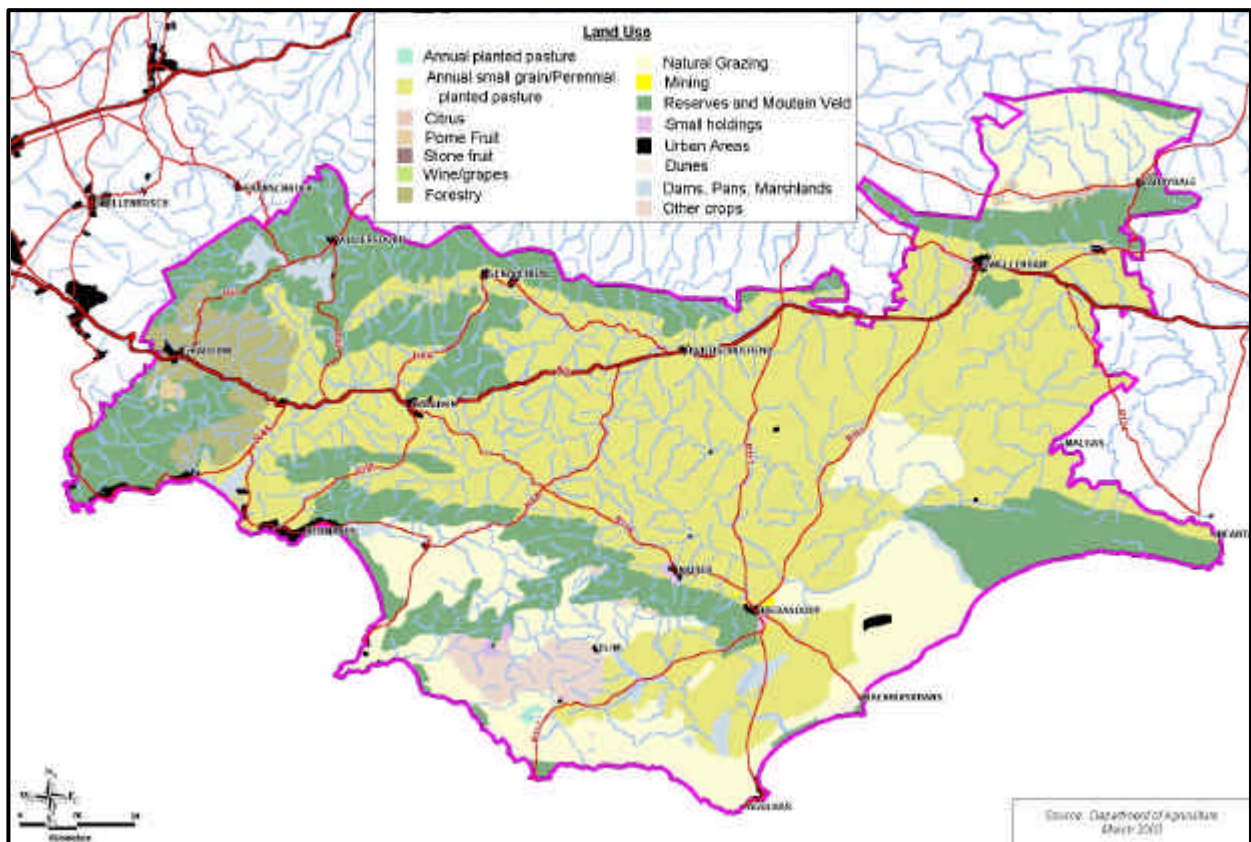


Figure 9: Agricultural land-use in the Overberg District Municipality (A larger scale map is appended to this document).

The risks posed by the extensively high exposure of the district municipality to the primary agricultural sector, were emphasised by droughts, untimely rain in the harvesting season and difficult export circumstances in the fruit industry occurring over the last couple of years. Since 2000 these problems are reaching critical levels. It is clearly an indication that the Overberg District Municipality should further exploit its potential for diversification by accelerating the development of more value adding industries.

Alternative options to expand the agricultural sector include, *inter alia*, the following:

a) Agri-tourism

Since the South African tourism industry has huge potential, agri-tourism is seen as an alternative possibility for agriculture. Agri-tourism seems to be a viable option, but a comprehensive agri-tourism strategy needs to be developed for the ODM.

There is a world-wide tendency, especially in developed countries, that people want to move from the cities to the rural areas. There are various perceptions why one would want to move from the urban landscape to rural landscapes. Some of these perceptions might include the fact that the farm lifestyle is healthy, good and natural, while city life is artificial and bad. Other perceptions might be that farmers are financially independent and demonstrate character by working hard. Agriculture may also be seen as the basic economic activity on which the whole economy rests.

With a combination of these perceptions, with the boom in global tourism trade and the physical beauty and potential of the ODM, agri-tourism can be utilised as an alternative source of income, but it needs to be controlled, planned and structured.

b) Organic products

There is a growing market for organic products. Although, the local market is still small and seemingly only of importance to higher income groups, the situation can change, and there is definitive room for producing organic foods in developing countries.

One of the most limiting factors to develop a lively local organic agriculture industry is the certification of organic products. There is no local institution that can certify if products are organic or not. Secondly, the knowledge on organic farming is insufficient, especially on the cultivation practices and management of pests of organic farming.

Organic farming is seen as 'secure food', because damaging chemical residues are absent. Organic agriculture is considered to uphold traditional practices and to produce secure food. According to Europe's organic farmers the profit margin of organic products can be as high as 200%, although there are organic farmers that got lower profit margins than the average conventional units.

Organic farming is not only a popular alternative because the produce is healthier, but the values, ethics and naturalism associated with it is attractive to both the producer and consumer.

10.2.4 MARICULTURE

Although South Africa has a limited number of sheltered bays and estuaries suitable for mariculture, the potential for open-coast mariculture is vast. The mariculture industry in South Africa is relatively small in relation to capture fisheries, but is continuing to develop since its beginning in 1948, with the establishment of the first oyster farming operation. The main sectors that make up this industry include mussels, oysters, scallops, abalone, finfish, seaweed, prawns and other species such as clams, mullets and red bait.

a) Mussels

The bulk of South Africa's mariculture production is made up of mussels, predominantly the Spanish mussel (*Mytilus galloprovinialis*). The mussel industry is poised to increase dramatically in the near future with additional land being made available for mariculture in Saldanha Bay and renewed interest in other areas (Probyn, 1999).

b) Oysters

The Breede River estuary is a breeding ground for oysters, while oysters can be found all along the Agulhas coastline.

The three most important edible oysters on the Southern African Coast are:

- i) *Crassostrea margaritacea*, which is the common rock oyster on the Cape coast.
- ii) *Saccostrea cucullata*, which is similar in shape and taste to the imported *Crassostrea gigas*.
- iii) *Ostrea atherstoni* has an extremely strong taste when eaten raw, but is most palatable when cooked.

c) Abalone

Poaching or the illegal harvesting of abalone, is the single biggest threat to the South African abalone resource, especially along the Agulhas Coast. The farming of abalone is a growing business in South Africa. Today there are 11 farms situated between Port Elizabeth in the east and Port Nolloth in the west. At present, seven farms are exporting cultured abalone to the Far East. Abalone farming has been developed since about 1990 and is practiced on a small scale at Hermanus and Gansbaai.

The hatchery at the Old Harbour in Hermanus aims to restock the Hermanus Marine Reserve with abalone and thus prevent this highly prized natural resource from being depleted.

d) Seaweeds

Seaweed mariculture, specifically *Gracilaria gracilis* for agar production and abalone feed, is presently being conducted on small scale along the coast (Probyn, 1999).

e) Other

Production of other species such as clams, mullet and red bait has all but ceased for the present though there is renewed interest in farming clams.

10.2.5 FISHING

The fish industry is another important element of the agriculture sector, and the coast of the ODM is well known for rock and boat fishing. L'Agulhas is the most important production area in the Cape linefish industry. However, the fish industry is experiencing problems with decreasing catches. In addition, the quota system is also controversial. Other important sub-industries are abalone and crayfish. However, both these industries are experiencing large scale plundering, mainly for export via the black-market. One of the reasons attributed is the high levels of unemployment, particularly during the off seasons.

A large number of people are involved in the fish industry. Working harbours are found at Hermanus, Gansbaai and Struisbaai. Fresh seafood may also be purchased here. Shark biltong (dried, salted meat) is available at Gansbaai, home of the shark-processing, fish canning and line fish industries (COTA, 1995).

Smaller slipways are found at the villages of Kleinmond, Hawston and Franskraal, and fishing boats are dramatically winched up the slipway at Arniston/Waenuiskrans at high tide.

Aquaculture is in the early developmental stages in the ODM, and is introducing the rainbow trout, the only species of commercial value at present (COTA, 1995).

10.2.6 MINING

There are very limited mining activities and mining opportunities in the region. Other than quarrying, mining contributes very little to the region's economy (approximately 1% of the Gross Regional Product) and employment generation (0.10% or 77 employees).

Quarries and mines are in most instances situated in isolated areas and in other instances within a visually prominent or environmentally sensitive area, which is often conducted in an unsightly manner with scant concern for aesthetics and environmental issues.

10.2.7 CONSTRUCTION

The construction and repairs industry contributes 3% to the Gross Regional Product. Although it is not one of the biggest contributors to the GRP, it is however fairly labour intensive employing both permanent and a number of seasonal labourers (7.7%).

The real estate industry, which falls under construction, has however shown a significant upswing. There has been a great deal of interest from national and international investors in Greyton's real estate market and some residential properties have achieved well in excess of R1 million (Theewaterskloof IDP).

10.2.8 MANUFACTURING

The manufacturing sector is the third largest contributor to the GRP (11%) and employs more than 5% (3 644) of the region's labour force. The manufacturing sector is dominated by the processing and manufacturing of local products and the largest concentration of manufacturing activities can be found in and around Bredasdorp, Caledon and Swellendam.

Bloukop Gallery, near Swellendam, produces a range of Shaker-style craftsman-made furniture in fine African woods such as hard pear and boekenhout. It also stocks Cape antique furniture, select sculptures, masks, and other African artefacts, the work of several Cape artists and craftspeople, and ethnic and contemporary jewellery.

The Morgenon Craft Shop is a community craft shop, which sells wares produced at the Morgenon training facility, such as screen-printed textiles and clothing, beadwork, handmade paper, wood products, and garden furniture and décor items from alien vegetation. The work was displayed at the Craft Imbizo in Johannesburg at the time of the World Summit on Sustainable Development; some textiles and wooden products have

been accredited as Proudly South African; and an Impumelelo Award was won in November 2002.

Bakgat Pottery is situated between Caledon and Stanford and produce practical ceramic wares and products. Bakgat Pottery trains local workers to produce products to superior standards and provides product to an extensive market, which includes the local gift market, delicatessens and selected wineries such as Spier, Boschendal and Eikendal Vineyards. Ranges include Braeside, Sauce, Table and Restaurant.

Kapula Candles situated in Bredasdorp produces about 250 000 candles per month, each one crafted and decorated by hand. The candles are made from top quality imported wax, wick and pigment. The factory currently occupies 4 buildings, and runs with a staff of over 200 permanent employees, all of which are people from the local community. Kapula export their products to the USA, Japan, Australia, New Zealand and Europe. Through an international partnership, Kapula also opened a branded retail outlet and a gallery in Berlin.

Suurbraak is also known for the handmade wooden chairs with rush seats and is only 25 km from Swellendam, while Elim is know for its thatch craftsmen.

A number of agri-chemical companies supplying farms with fertilisers and persiticides, irrigation equipment supplies and firms making pallets and boxes are situated in Grabouw.

10.2.9 WINE INDUSTRY

The cool southerly district of the Overberg has, in the past decade, seen the opening of new viticultural areas such as Elgin and Walker Bay near Hermanus. Here, the mean annual rainfall is as high as 750mm and the soil is mainly sandy, which makes for straightforward preparation and cultivation. The area does not receive as many hours of sunshine as other districts because of the proximity of the mountains and this contributes to a cooler climate. Among its wineries are Paul Cluver/Thandi, Goedvertrouw, Hamilton Russell and Bouchard Finlayson.

10.2.10 TRADE AND CRAFT

Retail trade is the second largest contributor to the region's GRP (23%) and also the second largest source of employment throughout the ODM, providing jobs to 13.2% (9 419) of the labour force. Although the highest levels of craft production and design occur in the Cape Metropolitan Area, further significant nodes occur in areas where there is an established or growing tourism industry, e.g. Overberg. This sector is also one of the most important sources of informal employment, with the informal trading segment having mushroomed in the region over the last decade.

Wesgro identifies a number of different categories within which craft activity can be classified. These include the following:

- a) **Traditional:** Culturally specific products of which the meaning and significance is generated and shared by members of a specific community.
- b) **Designer goods:** A deliberate adaptation of traditional design motifs and production processes to create a more commercially viable item.

- c) **Craft art:** Products, which are created entirely by hand by very skilled producers. Items are of high aesthetic value and design is an important component.
- d) **Functional wares:** Mass-produced handmade goods, often of superior design and production quality, created in small batch production processes in craft workshops or (small) factories.
- e) **Souvenirs:** Generally inexpensive trinkets of simplified crafts, which sell as memories of a particular location or experience.

The major products in the sub-sectors of the planning area include, *inter alia*, ceramics, textiles, beadwork, metal work, jewellery, woodwork, etc.

A recent audit of craft industry assets in the Western Cape has highlighted the fact that the sector's real strength in the province lies in retail. There are more than 300 retail outlets in the province and a significant number of informal and formal craft markets, many of them attached to tourist destinations and festivals. In addition, there are regular agricultural shows and other special events in the rural areas, which usually include some form of craft markets as a core activity, e.g. Hermanus Whale Festival, various agricultural shows, Pringle Bay Craft market, etc. (Wesgro, 2000).

10.2.11 TOURISM

Tourism has been identified as one of the sectors with the largest potential for growth and development in the Western Cape. This is particularly valid in the ODM, where the unique diversity of communities, cultures and natural resources imply huge potential for sustainable tourism.

The region enjoys a comparative advantage in this industry, firstly in terms of its own resources, and secondly in terms of its location. The resource base includes a wide spectrum of elements such as the scenic beauty and views (e.g. the Brandy, Fynbos and Whale routes), the sea (e.g. scuba diving, fishing), the Kogelberg Biosphere Reserve, and various tourism and recreation developments such as the Caledon Casino and Spa, and the recently opened Western Cape Hotel and Spa. Other proposed developments include the Agulhas National Park, and a mini waterfront at Gansbaai. The district municipal area also enjoys a locational advantage, being situated next to other major tourism attractions such as the Winelands region and Cape Town. As an indication of its significance, 9 out of the top 11 foreign tourist attractions in South Africa are located in or near to the Cape Metropole Area.

The area comprises a variety of recreation areas, offering a broad spectrum of tourism opportunities, including, amongst others, the following (Overberg Tourism):

- (a) Absailing in Caledon and Swellendam surroundings.
- (b) Boat hires and cruises available at various coastal towns, such as Hermanus, Gansbaai (Dyer Island) as well as a number of river trips.
- (c) Diving for lobsters and other shellfish from shallow reefs and headlands.
- (d) Golf attractions such as the Arabella Golf Club and a number of others.
- (e) Hiking trails in, amongst others, Hottentots Holland Nature Reserve, Villiersdorp Nature Reserve and De Hoop Nature Reserve.

- (f) Horse riding at, amongst others, Greyton Nature Reserve, Greater Hermanus Area, Grootbos, etc.
- (g) Kloofing at the Suicide Gorge, Grabouw.
- (h) Rafting or black water tubing in the Kogelberg Biosphere Reserve and at Swellendam.
- (i) Rich historic cultural history, including the Old Moravian mission settlement in Bredasdorp district (1824), Wreck of Arniston (1815), etc.
- (j) Rock and surf fishing, which is popular among residents of the ODM.
- (k) Sand boarding at Betty's Bay.
- (l) Scenic beauty of pristine areas and panoramic mountain views
- (m) Shark cage diving at Gansbaai and Hermanus.
- (n) Undertaking various local flower and fruit tours such as the Fynbos Eco-tourism Route and Elgin Country Tours.
- (o) Unique eco-tourism experience near Caledon and L'Agulhas.
- (p) Unique range of bird species, which can be viewed at, amongst others, Botrivier Vlei, Walker Bay Nature Reserve, Onrus River Lagoon and Klein River Estuary.
- (q) Unique seaside holiday tranquility, which attracts many who seek a vacation 'away from it all'.
- (r) Various mountain bike trails, such as De Hoop Mountain Bike Trail, Kogelberg Nature Reserve, Greyton Nature Reserve, etc.
- (s) Various well-known festivals and shows, such as the Beer and Bread Festival, Elgin Rose Show, Patatfees, etc.
- (t) Visit the Birkenhead Micro-brewery at Stanford.
- (u) Visiting the Caledon Casino and Spa and various other Health and Wellness Centers.
- (v) Water sports such as canoeing, kayaking, water skiing and swimming at the Theewaterskloofdam, Buffeljagts Dam, Breede River.
- (w) Whale watching during spring.
- (x) Wine tasting opportunities provided at many cellars and wine estates.

10.2.12 SERVICES SECTOR

The service sector includes all activities that relate to professional, government and financial services and together represents 20.45% of the workforce in the planning area. Similar to the trade sector, the majority of the service sector activities are located in the main urban cores of Bredasdorp, Caledon and Swellendam.

These towns serve as the regional service centres, and a large number of government related services are located there, such as the offices of National and Provincial Government bodies, regional government headquarters, higher order education facilities, as well as the higher order health facilities.

10.3 UNEMPLOYMENT LEVELS

From 1991 to 1997/98 the ODM population increased by 22,8%. From 1993 to 1998 the regional economy, based on real turnover, shows an average growth figure of 14,5%. The population growth thus overshadowed economic growth by 8,3%. It can therefore be expected that unemployment will increase in future.

While the population increased with $\pm 39\%$ during the period 1980 - 2000, the labour force only increased by a marginal 4,2% from 1991 to 2001. This is a worrying factor and is

indicative of a growing dependent population of younger and older persons (Overberg IDP, 2002).

Although the unemployment figure in itself does not seem very high, it is clear that approximately 64% of the people of the district municipal area are in some or other way dependent, with only 35% of the ODM's population being employed. This will naturally contribute to poverty and privation (Overberg IDP, 2002).

Table 21: Employment Status.

	EMPLOYMENT STATUS		
	Employed	Unemployed	Not Economically Active
DMA	133	4	27
Theewaterskloof	35 066	8 034	20 904
Overstrand	18 642	5 164	13 721
Cape Agulhas	8 747	1 442	6 730
Swellendam	9 010	1 696	7 418
TOTAL (ODM)	71 598	16 340	48 800

(Source: Census, 2001)

The agricultural sector is clearly the biggest employer in the ODM. Although there is a strong focus on the services sector in the Overstrand municipal area, this particular area shows the most balanced economy in the entire district municipal area.

The Theewaterskloof Municipal Area is the most vulnerable part of the ODM should there be major setbacks in the agricultural field due to the fact that 52,3% of the labor force are employed in the agricultural sector with a considerable number employed in related industries.

Statistics for 1991 clearly indicate that the largest percentage of unemployment occurred in the two districts where agriculture was not the largest employer. This is indicative of the stability that was present in the industry and of the protection that farm workers enjoyed. The situation, however, has changed considerably since 1991. The industry is under enormous pressure from various levels and during the past 2 years new labour legislation contributed largely to quite a number of farm workers losing their jobs. Urgent attention to these problems is necessary because it can have a negative impact on both the regional economy and the living standards and development levels of the inhabitants.

The informal sector is increasingly playing a role to assist numerous unemployed people to survive and to render opportunities to new labourers and emergent entrepreneurs. Both from a district and local municipal level perspective, skills development, entrepreneurship and small, micro and medium enterprises should be focused on. This will provide in the needs of current unemployed persons, those with few job opportunities and the continuous stream of new immigrants. This challenge will however require adjustments and creativity (Overberg IDP, 2002).

11 ENVIRONMENTAL CONSERVATION

The ODM comprises a host of unique natural features and ecosystems, including the following:

11.1 KOGELBERG BIOSPHERE RESERVE

The Kogelberg Biosphere Reserve, South Africa's first biosphere reserve, is situated between Gordon's Bay and the Bot River Estuary and stretches inland to the Groenlandberg. It includes the near-shore coastal zone up to 2 sea-miles ($\pm 3,5$ km) from the shore along some 70 km of coastline (refer to Figure 10). The Kogelberg Biosphere Reserve falls with the ODM and forms part of the Theewaterskloof Municipality and comprises an area of $\pm 92\ 000$ ha (67 000 ha terrestrial plus 25 000 ha marine).

The Department of Environmental and Cultural Affairs (DECAS) suggested in 1991 that a series of *cluster* biosphere reserves be established to cover the entire Fynbos Biome. The recommended biosphere reserve programme was initiated with the registration in 1998 of the Kogelberg Biosphere Reserve as South Africa's first biosphere reserve.

The Kogelberg Biosphere Reserve is of exceptional conservation significance. It may be regarded as the 'floristic heart' of the Cape Floral Kingdom since it appears to have the highest plant species richness and endemism in the Fynbos Biome. On the basis of its phytogeographical significance and species richness, the Kogelberg area has been proposed as one of the primary nodes as nuclei for nature reserves in the Fynbos Biome.

More than 1 600 plant species are estimated to occur in the area of which some 150 taxa are estimated to be locally endemic (Boucher 1977, 1982 & Jordaan 1991). The remarkable floristic diversity of this area is also evident from the distribution patterns of a sample of 1 936 plant taxa from plant families and genera which are characteristic of the Cape Flora such as Proteaceae, Ericaceae, Restionaceae and Bruniaceae. The highest percentage occurrence of these taxa per quarter degree square (20 - 26%) is found in the Kogelberg area (Oliver *et al.* 1983).

The area is also of outstanding importance as a predominantly natural area with a *de facto*¹⁴ wilderness area so close to a large city (within 40 km from the centre of Cape Town). An exceptional diversity of natural environments characterises the area, including marine and coastal environments, rare blackwater lakes, marshes, estuaries, rivers, and mountains bordering on a narrow coastal plain.

The international conservation significance of the area justifies maximal conservation status for the Kogelberg. Consequently, an application is being prepared by the WCNCB for the registration of the Kogelberg Nature Reserve as a **World Heritage Site** in terms of the World Heritage Convention.

¹⁴ The phrase '*de facto* wilderness' refers to natural areas that are wilderness in the general sense of the term, but have not been legally designated.

Effective biosphere reserve management includes the formulation and implementation of strategies to encourage the appropriate management of private areas. In the latter regard, it is important to remember that private land is included into a biosphere reserve on a voluntary basis and that land-use which is compatible with the biosphere reserve principles is not mandatory on the owner of such land. The zoning of private land as part of a biosphere reserve is merely an ideal. It is imperative that strategies be implemented to formalise the inclusion of such private land and that such strategies should make land-owners enthusiastic about being included into the biosphere reserve.

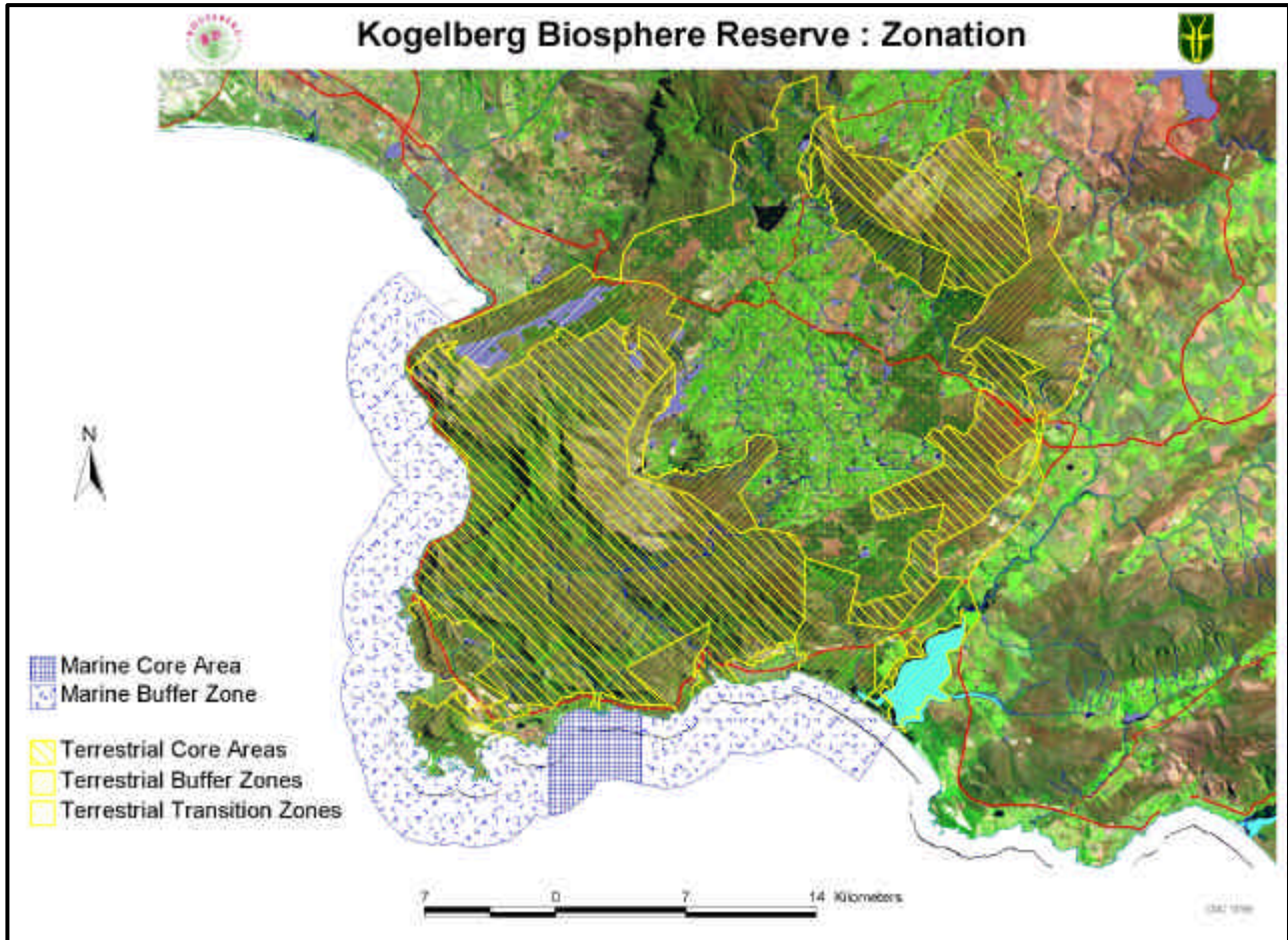


Figure 10: Kogelberg Biosphere Reserve.

11.2 RAMSAR SITES

Two registered Ramsar¹⁵ sites are situated in the ODM, namely **De Hoop Vlei** and **De Mond (Heuningnes Estuary)** Ramsar Site.

¹⁵ The Ramsar Convention on Wetlands is one tool being used in South Africa to stem the loss of wetlands, raise awareness of their functions and values, and promote sustainable use of wetland resources. The Convention is an intergovernmental treaty, which provides the framework for national action and international co-operation for the conservation and wise use of wetlands and their resources. One of the obligations of Contracting Parties is to register wetlands of exceptional natural value on the List of Wetlands of International Importance (Ramsar List). There are presently 123 Contracting Parties to the Convention, with 1060 wetland sites inscribed on the Ramsar List. South Africa has 16 registered sites, five of which are designated World Heritage Sites.

11.2.1 DE MOND (HEUNINGNES ESTUARY)

It is important to note that all the information regarding the Ramsar Sites have been quoted from the *Ramsar Information Sheet for the Site Designated to the List of Wetlands of International Importance in terms of the Convention of Wetlands of International Importance especially as Waterfowl Habitat* (www.ngo.grida.no).

a) Location and Overview of the Site

The Heuningnes Estuary extends approximately 12 km across the flat coastal plain of the Zoetendals Valley farm area. It is however only the lower 2 km stretch which shows the proper characteristics of a proper estuary. The estuary breaks out to the sea through a double dune ridge at the De Mond Forestry Station.

The nearest town, Bredasdorp, is 25km from the Ramsar site. The Indian Ocean forms the southern boundary, while agricultural lands adjoin the northern, eastern and western boundaries of the site.

b) Ramsar Criteria and Justification

The 927 ha wetland is a particularly good representative example of a natural or near-natural wetland, common to more than one biogeographical region. It supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant or animal, or an appreciable number of individuals of any one or more of these species. The De Mond wetland is also of special value for maintaining the genetic and ecological diversity of a region because of the quality and peculiarities of its flora and fauna.

The wetland was designated a Ramsar site primarily for its importance as one of the few confirmed South African breeding sites of the Damara Tern *Sterna balaenarum*. This species is endemic to southern Africa, is listed as rare and vulnerable and is possibly the rarest resident sea bird in South Africa. It is estimated that about 15% of the national population of this species is found in the De Mond area. The dune areas and pebble slacks of the beaches around the estuary are important for nesting sites while the estuary is a vital foraging ground for the birds and is used as a meeting ground during pair formation.

Other breeding birds include African black oystercatcher, blue crane, Kittlitz's plover and Egyptian goose. As the most southerly estuary in Africa, the site is scientifically important for species distribution extremities, including the southernmost records of tropical species like the ginger prawn, giant mud crab and a gastropod. The seahorse also occurs here.

c) Factors Adversely Affecting the Site's Ecological Character

The following factors have been identified which could adversely affect the site's ecological character including changes in land use and development projects:

- i) Oil pollution from oil spilling at sea.
- ii) Pollution of the system arising from agricultural activities in the wetland's catchment area. Pesticides and artificial nutrients are already widely used by the agricultural sectors in the area.
- iii) Recreational and coastal development pressures are increasing on all South African coastal areas.

- iv) Further road culverts or bridges and dams would adversely affect the flow of the tributaries.
- v) The use of two, three and four wheeled off-road vehicles is an increasing problem on the beach and coastal dunes. This is the most severe threat to the security of the nesting Demara Terns at present.

d) Conservation Measures Taken

The area is State land and has been proclaimed as State Forest. An outdated management plan exists for the area. The management authorities have realised this shortcoming and are in the process of revising the existing management plan. Conservation measures that have been undertaken and are still being implemented include:

- i) The maintenance of a viable ecosystem in the estuary and the prevention of the flooding of developed agricultural and grazing lands by keeping the estuary mouth open.
- ii) The conservation of the indigenous fauna and flora of the reserve.
- iii) Control of public access to the reserve for recreation and fishing is by means of a permit system.
- iv) Monitoring of bird breeding colonies.

11.2.2 DE HOOP VLEI

a) Location and Overview of the Site

De Hoop Vlei is situated within the De Hoop Nature Reserve, which lies along the southern coast of the Western Cape Province. The wetland is partly located in a gorge with high limestone cliffs, and consists of a coastal lake 16km long, formed where the mouth of the Sout River is blocked by coastal dunes. The lack of a visible outlet to the sea, and widely fluctuating salinities make this system unique within the south-western Cape.

The most important rivers feeding the De Hoop Vlei is the Sout River and its tributary, the Potteberg River. The greater part of the Sout River catchment of the De Hoop Vlei falls outside the reserve. This river together with its tributaries are of significant conservation importance, being ecological corridors that collectively link the various natural wetlands situated in the Agulhas Plain with one another. In addition these rivers provide habitats for a number of organisms that form part of the biodiversity of the area.

The closest town, Bredasdorp, is 65km from the Ramsar Site. De Hoop Vlei Ramsar Site is within the De Hoop Nature Reserve, which lies along the southern coast of the Western Cape.

b) Ramsar Criteria and Justification

The De Hoop Vlei is an example of a specific type of wetland, rare or unusual in the appropriate biogeographical region. It supports an appreciable assemblage of rare, vulnerable or endangered species or subspecies of plant or animal, or an appropriate number of individuals of any one or more of these species. The wetland also regularly supports 1% of the individuals in a population of one species or subspecies of waterfowl.

The De Hoop Vlei is unique in the south-western Cape as it is a coastal lake with no outlet to the sea with widely fluctuating salinities from approximately 3 ppt to 60 ppt. The

wetland is highly productive, with 75 wetland-dependent bird species having been recorded in the mare, many of which are found in large numbers. 7 South African Red Data Book bird species have been spotted in the wetland area. Significant populations of yellowbilled duck, representing 7,1% of the South African population are found, along with 15% of the world's population of Cape shoveller. Both of these species are known to breed in the vlei. The wetland is also known as one of very few South African breeding sites of the greater flamingo. The De Hoop Vlei is also of special regional importance as one of a chain of wetlands along the southern Cape coast.

c) Factors Adversely Affecting the Site's Ecological Character

The development and operation of the Overberg Test Range has not resulted in a significant disturbance to the bird life of De Hoop Vlei as the aircraft flights are kept well away from the lake. The possible impact of the missile test range is being monitored and strict requirements have been laid down for the operation of the testing range to ensure that disturbance is kept to acceptable minimum levels.

The possibility that land use practices in the catchment may threaten the lake due to eutrophication by fertiliser runoff, pesticides and siltation due to increased erosion should be investigated.

d) Conservation Measures Taken and Proposed

The Ramsar site is within the De Hoop Nature Reserve of which the terrestrial portion covers an area of about 35 546 ha while the marine portion covers an area of approximately 25 300 ha. The original reserve was declared in 1957 but the additions to the reserve in the 1980's was only declared part of the reserve in 1990.

The management plan is under revision. The Ramsar site is one of the important facets of the Reserve and is dealt with appropriately in the management plan. The only monitoring carried out on the wetland is the quarterly counts of waterfowl.

The following conservation measures have been identified for the wetland in the management plan:

i) Water Flow and Quality

A pro-active attempt should be made to liaise with landowners and authorities in the catchment of the De Hoop Vlei in order to improve water quality and flow into this important Ramsar site.

ii) Control of Alien Fish Species

Implementation of control measures to reduce the number of *Oreochromis mossambicus*, has been identified. It is possible to utilise this fish as a source of food for workers as part of the control programme.

11.3 NATIONAL PARKS

The ODM has two national parks, namely the L'Agulhas National Park and the Bontebok National Park, which is managed by SANParks.

Table 22: Key information on the National Parks.

Conservation Areas			
Conservation Areas	Town/ Vicinity	Current Size (Ha)	Managed By
L'Agulhas National Park	Greater Bredarsdorp	16 800	SANParks
Bontebok National Park	Swellendam	2786	SANParks

(Source: www.parks-sa.co.za)

a) L'Agulhas National Park

The L'Agulhas National Park covers the area around the southern most tip of Africa. Its rich natural and cultural features make it worthy of its national park status. The dominant vegetation biome is Fynbos within which 11 vegetation types have been defined, one endemic to the study area. The wetlands of the area contribute to the high diversity of wetland plants and aquatic invertebrates, including the endangered Cape plantanna, the micro frog, and a host of water birds.

From an initial core area of 100ha around the Cape Agulhas lighthouse in 1999 (comprising land acquired by the National Parks Trust and Portnet land contracted into the park), some 20 000ha of the Agulhas Plain is currently under the management jurisdiction of the Agulhas National Park. The consolidation, and acquisition, of land between Quoin Point in the West and Cape Agulhas in the east has progressed significantly since park inception (Agulhas National Park Strategic Management Plan, 2003).

The medium-term land consolidation goals of the Agulhas National Park includes the strategic and opportunistic expansion of the current extent of the park. This expansion program will be contextualised within the GEF-funded Agulhas Biodiversity Initiative (ABI) (refer to Par. 12.6.3 on page 103) and the initiatives to establish a biosphere reserve for the Agulhas Plain.

b) Bontebok National Park

The Bontebok National Park is situated some 6km from Swellendam. The park is sheltered by the Langeberg Mountains, and bordered to the south by the peaceful Breede River.

The park is situated within the Cape Floral Kingdom, the smallest, but richest of the world's six floral kingdoms. The park contains a rich variety of plant species and in spring the veld is covered with flowers. Fynbos and renosterveld bush flourish in the temperate climate where the rains. The park is noteworthy as an excellent place to see *Stanley's Bustard*. Other large and visible species include *Blue Crane*, *Spurwing Goose*, *Secretarybird*, and *Black Korhaan*. The Bontebok National Park provides a refuge for not only bontebok, but also for other species such as Cape mountain zebra, red hartebeest and grey rhebok.

11.4 CONSERVATION AREAS

Table 23 and Figure 11 list the primary conservation areas within the ODM. This chapter should be read together with **Annexure 2**, which provides a comprehensive list of the registered nature reserves in the ODM.

Table 23: Summary of the primary conservation areas in the ODM.

Conservation Areas	Size	Managed by
Grootvadersbosch Nature Reserve		WCNCB
Marloth Nature Reserve		WCNCB
Kogelberg Nature Reserve		WCNCB
Walker Bay Nature Reserve		WCNCB
Salmonsdam Nature Reserve		WCNCB
De Mond Nature Reserve		WCNCB
Vrolijkheid Nature Reserve		WCNCB
De Hoop Nature Reserve		WCNCB
De Hoop Marine Reserve		WCNCB
Hottentots-Holland Nature Reserve		WCNCB

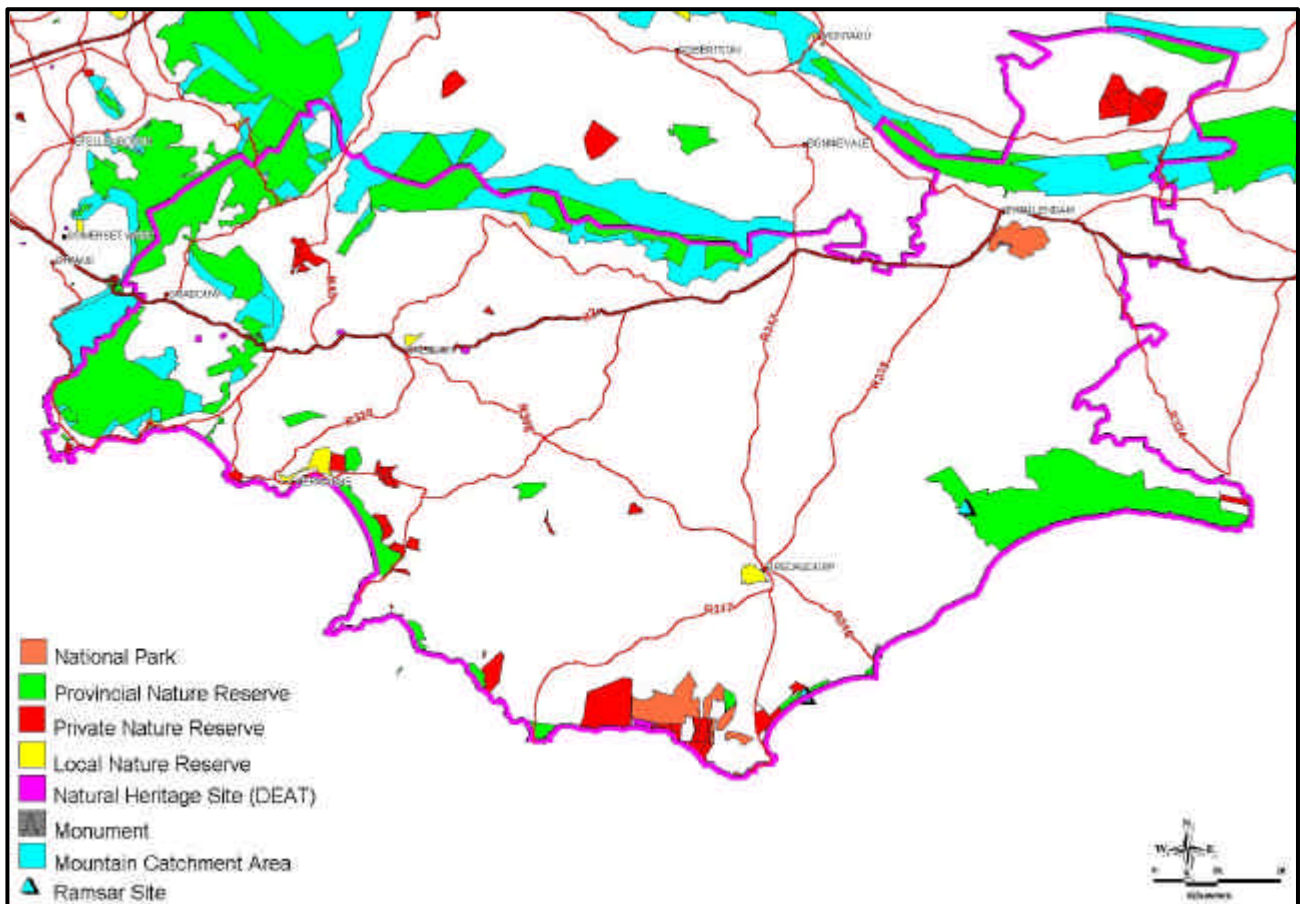


Figure 11: Conservation Areas in the Overberg District Municipality (A larger scale map is appended to this document).

a) Grootvadersbosch Nature Reserve

Grootvadersbosch Nature Reserve is situated in the Langeberg, about 22 km northwest of Heidelberg, and comprises 240 ha of forest.

b) Marloth Nature Reserve

The Marloth Nature Reserve lies in the Swellendam mountains, adjacent to the Swellendam State Forest and is managed together with privately owned mountain catchment land.

c) Kogelberg Nature Reserve

The Kogelberg Nature Reserve lies within the southern stretch of the rugged Hottentots Holland mountain range and comprises a core area with some smaller fragments. The Kogelberg Nature Reserve is now managed according to the internationally accepted principles of a biosphere reserve.

d) Walker Bay Nature Reserve

Walker Bay Nature Reserve lies on the south-western Cape coast, east of Hermanus. The reserve consists of five coastal areas, lying between Hermanus and Die Dam near Struisbaai. The main section, known as Walker Bay, stretches from the Klein River estuary to De Kerlders at Gansbaai. The reserve features a long beach, known as Die Plaat.

e) Salmonsdam Nature Reserve

Salmonsdam Nature Reserve lies 20 km east of Stanford, at the foot of the Perdeberg mountains. The reserve was established in 1962 and comprises an area of 834 ha.

f) De Mond Nature Reserve

De Mond Nature Reserve is situated 26 km south-east of Bredasdorp and lies at the mouth of the Heuningnes River. It forms part of the De Mond (Heuningnes Estuary) Ramsar Site.

g) Vrolijkheid Nature Reserve

The Vrolijkheid Nature Reserve lies in the Breede River valley, about 15 km south of Robertson. Vegetation in the reserve is known as arid Robertson Karoo.

h) De Hoop Nature and Marine Reserve

The De Hoop Nature Reserve is situated east of Bredasdorp and forms part of the world's smallest and most threatened plant kingdom – the Cape Floral Kingdom. De Hoop has the largest conserved area for the rare lowland fynbos. The adjacent De Hoop Marine Protected Area extends three nautical miles (5 km) out to sea and is one of the largest marine protected areas in Africa. De Hoop Vlei Ramsar Site is also located within the nature reserve.

i) Hottentots Holland Nature Reserve

The Hottentots Holland Nature Reserve lies in the Hottentots Holland mountains. The reserve stretches from Elgin in the south to beyond Villiersdorp in the north, and from the Stellenbosch mountains in the west, eastwards to the Groenland mountains.

SECTION C: PLANNING CONTEXT AND APPROACH

SECTION SYNOPSIS

This section describes the following:

- a) Context within which the Overberg SDF was prepared, with specific reference to the international and national obligations and protocols and the relevant legislation.
- b) The planning approach adopted for the preparation of this SDF, namely the bioregional planning approach.
- c) The primary objective of the framework, namely to promote real sustainable development in the ODM.

12 PLANNING CONTEXT

12.1 INTERNATIONAL PROGRAMMES AND CONVENTIONS

12.1.1 UNESCO'S MAN AND THE BIOSPHERE PROGRAMME

In terms of the project brief, this spatial development framework is to provide strategies that will promote sustainable development in the ODM (refer to Chapter 15 below). It is generally accepted that UNESCO's MAB Programme provides an ideal framework for achieving the above objective.

The MAB Programme is a global programme of international scientific co-operation, dealing with people-environment interactions over the entire realm of bioclimatic and geographic situations of the biosphere. Research under the MAB Programme was designed to solve practical problems of resource management, and aims to fill gaps in the understanding of the structure and function of ecosystems, and of the impact of different types of human interaction. Key ingredients in the MAB Programme are the involvement of decision-makers and local people in research projects, training and demonstration at the field level, and the bringing together of disciplines from the social, biological and physical sciences in addressing complex environmental problems (Miller, 1996).

There is general agreement that **biosphere reserves** provide a useful model for giving physical effect to the MAB Programme. The biosphere reserve model has been designed as a tool for reconciling and integrating the conflicting interests and pressures that characterise land-use planning. The biosphere reserve model is widely implemented and recognised, with more than 400 biosphere reserves currently existing world-wide.

12.1.2 AGENDA 21

Agenda 21 is an international programme, adopted by more than 178 governments, to put sustainable development into practice around the world. It emerged from the United Nations Conference on Environment and Development (UNCED) held in Rio de Janeiro in 1992.

The government is morally obliged to implement the Agenda 21 agreements, which reflect global consensus and political commitment on developmental and environmental cooperation.

Underlying the UNCED agreements is the realisation that the international world cannot continue with present policies, which increase poverty, hunger, sickness and illiteracy and cause continuing deterioration of ecosystems on which life on earth depends.

The government recognises Agenda 21 as the fundamental programme of action for achieving sustainable development. Agenda 21 provides a broad overview of issues pertaining to sustainable development, including statements on the basis for action, objectives, recommended activities and the means of implementation.

In the process of transforming the South African society, the South African Government stated as one of its priorities that the government *'must ensure that all South African citizens, present and future, have the right to a decent quality of life through the sustainable use of resources'*. It is also stated that *'environmental considerations must be built into every decision'* and that current legislation should be revised *'with a view to establishing an effective system of environmental management'* in South Africa. The underlying principle of sustainability is not only recognised as a priority by the South African Government, but also internationally by way of Agenda 21.

Of particular relevance to the formulation of this spatial development framework, are the following principles of Agenda 21:

(a) Integrated approach to the planning and management of land resources

The broad objective of this programme is to facilitate the allocation of land-uses to the uses that provide the greatest sustainable benefits and to promote sustainable and integrated management of land resources. In so doing, environmental, social and economic issues should be taken into consideration. Protected areas, private property rights, the rights of indigenous people and their communities as well as other local communities should be taken into account.

(b) Integrated management and sustainable development of coastal and marine areas, including exclusive economic zones

The oceans of the world are an essential part of the global life-support system. They cover much of the earth's surface, influence climate, weather and the state of the atmosphere and provide food and other resources for our growing population.

Oceans are under increasing environmental stress from pollution, over-fishing and degradation of coastlines and coral reefs. The protection and sustainable development of the marine and coastal environment and its resources require new approaches to marine and coastal area management and development, at the sub-regional, national, and global levels.

The objective is the integrated management and sustainable development of coastal areas and the marine environment. To this end it is necessary to, amongst others:

- (i) Provide for an integrated policy and decision-making process involving all affected sectors.
- (ii) Identify existing and projected uses of coastal areas and their interactions.
- (iii) Concentrate on well-defined issues concerning coastal management.
- (iv) Apply preventative, or precautionary, approaches in project planning and implementation, including prior assessment of the impacts of major projects.

(c) Promoting sustainable human settlement development

It is expected that about half the world's population is living in cities. The urbanisation of society is part of the development process and on a global scale cities generate 60 percent of gross national product.

In industrialised countries, the consumption patterns of cities are severely stressing the global ecosystem, while settlements in the developing world need more raw material, energy, and economic development simply to overcome basic economic and social problems.

This implies, *inter alia*, the following:

- (i) Providing adequate shelter for all, especially for rapidly growing populations.
- (ii) Improving human settlement management to ensure sustainability of all urban settlements.
- (iii) Promoting sustainable land-use through environmentally sound planning and management.
- (iv) Promoting the integrated provision of services, such as water, sewage, stormwater and solid waste management.

(d) Integrating environment and development in decision-making

Countries can no longer afford to make decisions concerning developmental issues, without taking the environment into account. Changes are needed in the institutional structures of government to enable more systemic consideration of the environment when decisions are made on, amongst others, land-use, conservation, economic, social, agriculture, transportation and other policies.

Governments should also strengthen national institutional capacity and capability to integrate social, economic and environmental issues at all levels of developmental decision-making and implementation. Attention should also be given to moving away from narrow sectoral approaches and progressing towards full cross-sectoral co-ordination and co-operation. This implies the following:

- (i) Integrating environment and development at the policy, planning and management levels, with the objective of improving, or restructuring, the decision-making process.
- (ii) Providing an effective regulatory framework, with the main objective to promote the integration of environment and development policies through appropriate legal and regulatory policies, instruments and enforcement mechanisms at the national, provincial and local levels.
- (iii) Making effective use of economic instruments and other incentives, by:
 - Incorporating environmental costs into the decisions of producers and consumers, and not to pass these costs onto society in general or to future generations.
 - Moving towards integrating social and environmental costs into economic activities so that prices will appropriately reflect the relative scarcity and total value of resources (water and electricity as examples) and contribute to the prevention of environmental degradation.
 - Including the use of market principles in providing economic instruments (e.g. the establishment of an environmental trust fund) and policies to pursue development.

(e) Establishing systems for integrated environmental management and auditing

This principle includes the use of IEM procedures, which include the implementation of environmental management systems, monitoring and auditing in all development and conservation initiatives.

South Africa is one of the global partners of Agenda 21, which calls on governments to adopt national strategies for sustainable development.

The onus of implementing the key objective of Agenda 21, that of sustainable development, has been placed clearly on local governments and its constituent communities. The real roots of Agenda 21's success therefore lie at the micro, local level, all of which are addressed through the Local Agenda 21, which is described below.

12.1.3 CONVENTION ON BIOLOGICAL DIVERSITY

Another international obligation of relevance to the formulation of this spatial development framework entails the implementation of the Convention on Biological Diversity which was also adopted by more than 178 governments at the UNCED in Rio de Janeiro in 1992.

The three main objectives of the Convention are:

- a) The conservation of biodiversity.
- b) The sustainable use of biological resources.
- c) The fair and equitable sharing of benefits arising from the use of genetic resources.

The conservation of biological diversity on earth is vital, as the essential goods and services depend on the variety and variability of genes, species, populations and ecosystems. Biological resources feed and clothe us, and provide housing, medicines and spiritual nourishment.

The loss of the world's biological diversity continues, mainly from habitat destruction, over-utilisation of resources, pollution and the inappropriate introduction of foreign plants and animals. This decline in biodiversity is largely caused by humans and represents a serious threat to our development and very survival on earth.

12.1.4 NEW PARTNERSHIP FOR AFRICA'S DEVELOPMENT

It is imperative that the planning, future development and management of the ODM respond and give effect to the requirements and aims of the New Partnership for Africa's Development (NEPAD).

NEPAD is a pledge by African leaders, based on a common vision and a firm and shared conviction, that they have a pressing duty to eradicate poverty and to place their countries, both individually and collectively, on a path of sustainable growth and development, and at the same time to participate actively in the world economy and body politic.

NEPAD centres around African ownership and management. Through this programme, African leaders are setting an agenda for the renewal of the continent. The agenda is based on national and regional priorities and development plans that must be prepared through participatory processes involving the people. It is their role to articulate these plans as well as lead the processes of implementation on behalf of their people.

The programme is a new framework of interaction with the rest of the world, including the industrialised countries and multilateral organisations. It is based on the agenda set by African peoples through their own initiatives and of their own volition, to shape their own destiny.

To achieve these objectives, African leaders will take joint responsibility for the following:

- a) Strengthening mechanisms for conflict prevention, management and resolution at the regional and continental levels, and to ensure that these mechanisms are used to restore and maintain peace;
- b) Promoting and protecting democracy and human rights in their respective countries and regions, by developing clear standards of accountability, transparency and participatory governance at the national and sub-national levels;
- c) Restoring and maintaining macroeconomic stability, especially by developing appropriate standards and targets for fiscal and monetary policies, and introducing appropriate institutional frameworks to achieve these standards;
- d) Instituting transparent legal and regulatory frameworks for financial markets and auditing of private companies and the public sector;
- e) Revitalising and extending the provision of education, technical training and health services, with high priority given to tackling HIV/AIDS, malaria and other communicable diseases;
- f) Promoting the role of women in social and economic development by reinforcing their capacity in the domains of education and training; by the development of revenue-generating activities through facilitating access to credit; and by assuring their participation in the political and economic life of African countries;
- g) Building the capacity of the states in Africa to set and enforce the legal framework, as well as maintaining law and order;
- h) Promoting the development of infrastructure, agriculture and its diversification into agro-industries and manufacturing to serve both domestic and export markets.

12.2 NATIONAL CONTEXT

This spatial development framework is to be prepared and give practical effect the intentions of the relevant Acts in terms of, *inter alia*, the following:

- a) Supporting an environmental ethic and the principle of environmental sustainability. The spatial development framework will provide a model for environmental sustainability and will, as such, illustrate the practical implementation of the underlying ethics of the relevant legislation and policy.
- b) It will create positive guidelines in terms of which the relevant authorities will, in future, be able to consider development applications in accordance with the relevant legislation.

The primary national statutes that provide the legislative context for the preparation of this spatial development framework are the following:

12.2.1 SOUTH AFRICAN CONSTITUTION AND PRINCIPLES OF SUSTAINABLE DEVELOPMENT

The South African Constitution, 1996 (Act 108 of 1996) places an obligation on all to ensure that sustainable development is promoted and that the integrity of the natural environment is respected.

In the Bill of Rights clause of the Constitution (Section 24iii), it is stated that *‘everyone has the right to have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures that secure ecologically sustainable development and use of natural resources, whilst promoting justifiable economic and social development’*.

The Constitution compels government to pass legislation to promote sustainable social and economic development, for example, through the enactment of the National Environmental Management Act, 1998 (Act 18 of 1998), the Development Facilitation Act, 1995 (Act 67 of 1995), the Local Government: Municipal Structures Act, 1998 (Act 117 of 1998), and the Local Government: Municipal Systems Act, 2000 (Act 32 of 2000).

Central to the objectives of the Constitution and the enabling legislation is the promotion of sustainable development, which requires that the three imperatives for achieving sustainable development, namely, **environmental integrity**, **human well-being** and **economic efficiency** be promoted in a balanced manner.

The Development Facilitation Act introduces substantive principles (norms) that are to guide land development decision-making. In addition to the latter principles, the Act also introduces the concept of Land Development Objectives (LDOs). The Act requires that plans that set objectives and targets for development and which inform the spatial and developmental imperatives of an area have to be recognised. Policy plans such as Integrated Development Plans (IDPs) are normative in that they set out desired aims. Normative legislation calls for a proactive planning system which places the emphasis on considered judgements and discretion of decision-makers, as opposed to the application of standardised rules and regulations (refer to the Green Paper on Development Planning, Government Notice 20071).

A decisively important principle, which underlies economic development, is the broadening of the economic base of a region (which is a fundamental government policy). Optimum development, furthermore, originates in sound and sustainable economic performance (economic efficiency), which requires the optimal utilisation of the **comparative economic advantages** of a region.

Sustainable development requires specific institutional capacity and for the development process to be successful, communities must be empowered to create, manage, and maintain their own development programmes. This capacity must be structured and channelled into their own community institutions (through for example IDPs of local authorities).

An integrated and holistic approach to development planning is therefore promoted in the Constitution and enabling legislation. This implies that the interrelationship between economic activities and other development dimensions such as social, demographic, institutional, infrastructure, financial, and environmental aspects should be considered in a balanced manner. As is contemplated in the Constitution and the enabling legislation referred to above, the social fabric of society (with special emphasis on the basic needs of human resource development) must be recognised as an integral part of any development strategy.

In terms of the Constitution, the responsibility for local socio-economic development and management vests with local government, which has the following responsibilities:

- a) Provision of democratic and accountable government for the local communities.

- b) Provision of services to the communities in an equitable and sustainable manner.
- c) Promotion of social and economic development.
- d) Promotion of a safe and healthy environment.

12.2.2 DEVELOPMENT FACILITATION ACT

The Development Facilitation Act, 1995 (Act 67 of 1995) contains provisions and general principles relating to land development and LDOs. Provision is made in the Act for granting statutory status to such principles and policies in both the national and provincial spheres of government.

Chapter 1 of the Act sets out two kinds of general principles, namely principles for land development and principles for decision-making and conflict resolution. These principles include, *inter alia*, provisions for ensuring that integrated land development is promoted, while taking into account social, economic, institutional, and physical aspects of land development, and that environmentally non-sustainable land development practices are discouraged. The Act, furthermore, requires that members of communities affected by land development should actively participate in land development and that such development must be sustainable (Van Wyk, 1999).

12.2.3 LOCAL GOVERNMENT: MUNICIPAL STRUCTURES ACT

The Local Government: Municipal Structures Act, 1998 (Act 117 of 1998) is one of the most important statutes in terms of which the proposed SDF is to be implemented, as it provides a framework within which the private sector and municipalities can work together to promote common interests. Of particular interest is the provision made for development-orientated planning and the need for development action to be aligned with integrated development plans.

This Act builds on the constitutional imperative of providing for functions and powers of local government. It places an obligation on municipalities to seek to achieve integrated sustainable and equitable social and economic development of its area as a whole by, *inter alia*, ensuring integrated development planning.

In terms of the Constitution, differentiation is made between four types of local government areas, namely:

- **Category A: Metropolitan Municipalities**
- **Category B: Local Municipalities**
- **Category C: District Municipalities**
- **Category D: District Management Areas**

A Category C Municipality is responsible for integrated development planning for the district as a whole, whilst Category B municipalities are responsible for development planning within its area of jurisdiction.

In this regard it is important to note that the ODM is responsible for the development of the district as a whole and specifically the DMA.

12.2.4 LOCAL GOVERNMENT: MUNICIPAL SYSTEMS ACT

The Local Government: Municipal Systems Act, 2000 (Act 32 of 2000) gives effect to the country's vision of developing local government, building on the constitutional provisions

for basic development rights. The Act elaborates on the core principles, mechanisms, and processes that are necessary to enable municipalities to move progressively towards the social and economic upliftment of communities within the municipal area, working in partnership with the municipality's political and administrative structures. The Act establishes an enabling framework for core processes of planning, performance management, resource mobilisation and organisational change that underpin the notion of developing local government (Glazewski, 2000).

The Act provides the primary statutory context for the preparation of an IDP for all spheres of government, namely, the **provincial, district and local town level**.

The above Act stipulates that *'when preparing, amending, withdrawing, or reviewing a development framework, regard shall be had to the natural and developed environment and ecologically sustainable development in general, and all prescribed steps taken in this respect, shall be specified and all prescribed studies shall be carried out'*. This implies that environmental planning must be based on a holistic integrated planning approach that will address the full spectrum of environmental and related key issues. It is, therefore, proposed that planning at all levels be undertaken in terms of the bioregional planning principles, the 'place-specific' planning approach and the biosphere reserve programme described in this document.

12.2.5 WHITE PAPER ON THE CONSERVATION AND SUSTAINABLE USE OF SOUTH AFRICA'S BIOLOGICAL DIVERSITY

In meeting its international obligations of the Rio Convention, the South African government is required to develop national strategies, plans or programmes, or adapt existing ones, to integrate the conservation and sustainable use of biodiversity into sectoral and cross-sectoral plans, programmes and policies. To this end, Government has published the White Paper on the Conservation and Sustainable Use of South Africa's Biological Diversity (Government Gazette No. 1095 of 1997) and the National Environmental Management Act, 1998 (Act 107 of 1998).

The vision, mission and principles guiding a biodiversity strategy for South Africa are described below:

(a) A Vision for South Africa

A prosperous, environmentally conscious nation, whose people are in harmonious coexistence with the natural environment, and which, derives lasting benefits from the conservation and sustainable use of its biological diversity.

(b) The Mission of Government

Government will strive to conserve South Africa's biological diversity and to, thereby, maintain ecological processes and systems whilst providing lasting development benefits to the nation through the ecologically sustainable, socially equitable, and economically efficient use of biological resources.

(c) Guiding Principles

In the context of the above vision and mission, the following inter-related principles, amongst others, will guide the application, assessment and further development of the biodiversity policy and strategy:

- a) All life forms and ecological systems have intrinsic value.
- b) All people and organisations should act with due care to conserve and avoid negative impacts on biodiversity, and to use biological resources sustainably, equitably and efficiently.
- c) The benefits derived from the use of South Africa's biological resources are dependent upon such resources being used at a rate within their capacity for renewal, i.e. sustainable use; maintaining the ecological integrity of the natural systems which produce such resources; minimising, or avoiding, the risk or irreversible change induced by humans; adequate investments being made to ensure the conservation and sustainable use of biodiversity; and avoiding or minimising the adverse impacts of the use of non-renewable resources on biodiversity.
- d) Benefits arising from the use and development of South Africa's biological resources will be shared in an equitable manner.
- e) Decision-makers and users of biological resources will be guided by economic approaches, which assess the full social and environmental costs and benefits of projects, plans and policies that impact upon biodiversity, i.e. undertake environmental audits.
- f) Where there is a threat of significant reduction, or loss, of biological diversity but inadequate or inconclusive scientific evidence to prove this, action should be considered to avoid or minimise threats, i.e. adopt the precautionary principle.
- g) Interested and affected individuals and groups will have an opportunity to participate in decisions about the ways in which biological resources are conserved and used.
- h) The conservation and sustainable use of biodiversity will be integrated strategically at all levels into national, provincial, local and sectoral planning programmes, and policy efforts (e.g. forestry, agriculture, fisheries, land reform, industry, education, health, mining, etc.) to implement the goals and objectives of the policy effectively.

12.2.6 NATIONAL ENVIRONMENTAL MANAGEMENT ACT

The vision of the National Environmental Management Act (NEMA), 1998 (Act 107 of 1998) is the following:

To provide for co-operative environmental governance by establishing principles for decision-making on matters affecting the environment, institutions that will promote co-operative governance and procedures for co-ordinating environmental functions exercised by organs of state; to provide for the prohibition, restriction or control of activities which are likely to have a detrimental effect on the environment; and to provide for matters connected therewith.

NEMA makes, *inter alia*, provision for the establishment of the following institutions:

- a) **Environmental Advisory Forum:** The function of such a Forum is to manage natural environments and make recommendations to local authorities regarding the management of the latter environment.

- b) **Committee for Environmental Co-ordination:** The object of such a committee is to promote the integration and co-ordination of environmental functions and to promote the achievement of the purpose and objectives of environmental implementation plans and environmental management plans. Such a committee will also scrutinise, report and make recommendations on the environmental implementation plans submitted to it.

The Act, furthermore, makes provision for the preparation of both environmental implementation and management plans by the relevant national departments involved in the management of the environment. The purpose of such plans is to co-ordinate and harmonise the environmental policies, plans, programmes and decisions of the various national departments that exercise functions that may affect the environment or are entrusted with powers and duties aimed at the achievement, promotion, and protection of a sustainable environment, and of provincial and local spheres of government.

Finally, NEMA makes provision for Integrated Environmental Management. The general objectives of which is the following:

- a) Identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management.
- b) Ensure that the effects of activities on the environment receive adequate consideration before actions are taken in connection with them.
- c) Ensure adequate and appropriate opportunity for public participation in decisions that may affect the environment.
- d) Ensure the consideration of environmental attributes in management and decision-making which may have a significant effect on the environment.

12.2.7 WHITE PAPER ON SPATIAL PLANNING AND LAND USE MANAGEMENT

The White Paper on Spatial Planning and Land Use Management builds, amongst other, on the concept of the municipal Integrated Development Plan (IDP), as provided in the Municipal Systems Act, 23 of 2000.

The essential elements of the new system proposed in the White Paper are the following:

(a) Principles

The system will be based upon principles and norms, which will be aimed at achieving sustainability, equality, efficiency, fairness and good governance in spatial planning and land-use management. The White Paper requires that decisions of planning authorities must all be consistent with these principles and norms.

(b) Land-Use Regulators

The White Paper proposes a category of authorities able to take the different types of decision falling into the realm of spatial planning and land use management, namely, land-use regulators (municipalities). It is proposed that each province will have a provincial land-use tribunal and appeal tribunal that will be land-use regulators in specified situations.

(c) IDP-Based Local Spatial Planning

The Municipal Systems Act requires that part of each municipality's IDP must be a spatial development framework. The White Paper spells out the minimum elements that must be included in a spatial development framework. It also proposes that the spatial development framework operate as an indicative plan, whereas the detailed administration of land development and land use changes is dealt with by a land-use management scheme, which will actually record the land-use and development permissions accruing to a piece of land. The inclusion of the spatial development framework, with a direct legal link to the land-use management scheme, is an essential step towards integrated and coordinated planning for sustainable and equitable growth and development.

(d) A uniform set of procedures for land development approvals

Where a proposed development is not permissible in terms of the prevailing land use management scheme, then permission is required from the appropriate land-use regulator. The White Paper proposes one set of such procedures for the whole country, thereby eliminating the current situation where different procedures apply in different provinces. This will facilitate national capacity building within land-use regulators as well as performance management of the system. The White Paper also proposes the alignment of the procedures for land development approval with those presently required in terms of the Environment Conservation Act for environmental impact assessments.

(e) National Spatial Planning Frameworks

In order to achieve more integrated and coordinated spending of public funds it is proposed that the Minister, in consultation, with cabinet, is able to prescribe national spatial planning frameworks around particular programmes or regions. This will not be a national plan as such but will rather be a policy framework for sustainable and equitable spatial planning around national priorities (<http://www.gov.za/whitepaper/2001/>).

12.2.8 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY BILL

The objectives of the National Environmental Management: Biodiversity Bill include the following:

- a) To provide, within the framework of the National Environmental Management Act for the management and conservation of biological diversity within the country.
- b) To provide for the use of indigenous biological resources in a sustainable manner.
- c) To provide for the fair and equitable sharing of benefits arising from the commercialisation through bioprospecting of traditional uses and knowledge of genetic resources.
- d) To give effect to international agreements relating to biodiversity which are binding on South Africa.
- e) To provide for co-operative governance in biodiversity management and conservation.
- f) To provide for a National Biodiversity Institute to assist in achieving the above objectives.

The Bill, furthermore, provide for the implementation of a National Biodiversity framework and for the preparation and delimitation of Bioregions, Bioregional Plans and Biodiversity

Management Plans. The latter plans must be aimed ensuring the long-term survival in nature of the species or ecosystem to which the plan relates.

12.2.9 NATIONAL ENVIRONMENTAL MANAGEMENT: PROTECTED AREAS BILL

The National Environmental Management: Protected Areas Bill forms part of a suite of legislation established to manage the environment. The framework is provided for in the National Environmental Management Act, where environmental management principles are set out and sections common to the other legislation in the suite are located.

The Bill makes, *inter alia*, provision for the declaration of four types of protected areas. These areas are listed below and is declared with the following primary purposes:

- a) **Special Nature Reserves:** declared to protect highly sensitive, outstanding ecosystems, species, geological or physiological features.
- b) **National Parks:** declared to protect areas of national or international biodiversity significance; a viable, representative sample of South Africa's natural systems and scenic areas and to provide the foundation for spiritual, scientific, educational, recreational and tourism opportunities which are environmentally compatible.
- c) **Nature Reserves:** declared to protect areas with significant natural features, species, habitats or biotic communities; protect a particular site of scientific, cultural, historical or archaeological interest; provide for its long-term protection and maintenance of its biodiversity; provide for a sustainable flow of natural products and services to meet community needs.
- d) **Protected environment:** declared to provide a buffer zone from undesirable development adjacent to national parks or nature reserves; to protect ecosystems needing protection outside of national parks and nature reserves; to protect areas which are sensitive to development due to either their natural characteristics or aesthetic reasons.

Further objectives of this Act is to provide for co-operative governance in the declaration and management of protected areas, and to provide for the continued existence of South African National Parks to assist in achieving the above objective.

12.2.10 OTHER ENABLING NATIONAL LEGISLATION

Table 24 below summarises the additional national legislation that provided the legislative basis for the formulation of this spatial development framework:

Table 24: Enabling national legislation.

ACT / ORDINANCE	PRIMARY FUNCTIONS
Conservation of Agricultural Resources Act (Act 43 of 1983)	This Act provides for control over the use of natural agricultural resources in order to promote the conservation of soil, water resources and vegetation and the combating of weeds and invader plants. Regulations were promulgated in Government Gazette 9238 of 25 May 1984, which provide, <i>inter alia</i> , for the use, control and protection of virgin soil, indigenous vegetation, vleis, marshes, water sponges and water-courses.
Disaster Management Act (Act 57 of 2002)	To provide for an integrated and co-ordinated disaster management policy that focuses on preventing or reducing the risks of disasters, mitigating the severity of disasters, emergency preparedness, rapid and effective response to disasters and post-disaster recovery. It also provides for the establishment of national, provincial and municipal disaster management centres, disaster management volunteers and matters incidental thereto.

Environment Conservation Act (Act 73 of 1989)	Control of littering, pollution, activities which may have a detrimental effect on the environment, combating of noise, control and licensing of waste disposal (landfill) sites, preparation and contents of environmental impact reports. The Act also provides for the declaration and management of any property in private ownership as a <i>Protected Natural Environment (PNE)</i> , the control of environmental pollution and for imposing penalties where any provision of the Act is contravened.
Lake Areas Development Act (Act 39 of 1975)	The objective of the Act is to protect the intrinsic environmental features of our rivers and coastal lakes and their natural surroundings. It provides for the establishment of Lake Areas, <i>i.e.</i> land (including parts of the sea or seashore) comprising or adjoining a tidal lagoon, a tidal river or any part thereof. Lake Areas are administered by the South African National Parks. This Act, however, has never been effectively applied and is currently being revised.
Local Government Transition Act (Act 209 of 1993)	This Act provides for interim measures for the restructuring of local government. The Local Government Transition Act requires all local authorities to draw up IDPs, <i>i.e.</i> a plan pertaining to the integrated development and management of the area of jurisdiction of the local authority concerned. The IDP is to be prepared in accordance with the general <i>principles</i> as well as LDOs contained in the Development Facilitation Act, 1995.
Marine Living Resources Act (Act 18 of 1998)	This Act provides for the conservation of marine ecosystems and the sustainable utilisation of marine living resources by controlling allowable catches, prohibiting certain fishing methods and the use of certain equipment and providing for the declaration of Marine Protected Areas (<i>i.e.</i> areas designated for the protection of particular species of marine fauna or flora and / or the replenishment or enhancement of fish stocks in adjacent areas). It furthermore, provides for equitable access to marine living resources by controlling fishing and mariculture rights, while also protecting the rights of subsistence harvesters by providing for the declaration of subsistence fishing zones. It provides for the enforcement of its provisions and penalties where provisions of the Act are contravened.
Minerals Act (Act 50 of 1991)	The Minerals Act is currently being renewed and a White Paper entitled, <i>A Minerals and Mining Policy for South Africa</i> was issued by the Department of Minerals and Energy in October 1998 (Government Gazette Notice 2359, 20 October 1998).
Mountain Catchment Areas Act (Act 63 of 1970)	This Act provides for the conservation, use, management and control of land situated in mountain catchment areas. In terms of the Act any area of which the water yield is of great importance may be declared a Mountain Catchment Area. Mountain Catchment Areas are managed by means of management guidelines relating to conservation, use and control of land and vegetation.
National Environmental Management: Biodiversity Bill, 1998 (Act 107 of 1998)	This Act provides for the management and conservation of biodiversity, the use of indigenous biological resources in a sustainable manner as well as for the fair and equitable sharing of benefits arising from the commercialisation through bioprospecting of traditional uses and knowledge of generic resources. This Act, furthermore, gives effect to international agreements relating to biodiversity and to provide for co-operative governance in biodiversity management and conservation.
National Forests Act (Act 84 of 1998)	The purpose of this Act is to: <ul style="list-style-type: none"> a) Promote the sustainable management and development of forests for the benefit of all. b) Create the conditions necessary to restructure forestry in state forests. c) Provide special measures for the protection of certain forests and trees. d) Promote the sustainable use of forests for environmental, economic, educational, recreational, cultural, health and spiritual purposes. e) Promote community forestry. f) Promote greater participation in all aspects of forestry and the forest products industry by persons disadvantaged by unfair discrimination.

National Heritage Resources Act (Act 25 of 1999)	The purpose of this Act, which is administered by the South African Heritage Resources Agency, is to preserve and protect the historical and cultural heritage of this country, which includes natural and human-made assets. This Act provides for the proclamation of <i>National Monuments</i> and the designation of <i>Conservation Areas</i> , on the grounds of their historic, aesthetic or scientific interest. The Act stipulates that the Council must be consulted with respect to the planning of a Conservation Area.
National Parks Act (Act 57 of 1976)	This Act provides for the establishment of National Parks in the Republic. National Park status establishes the strongest claim to permanent protection that is possible. South African National Parks is charged with the control, management and maintenance of National Parks. The Act also provides for the declaration of private land as part of a National Park, i.e. Contractual National Park. In such a case, an agreement and a Management Plan is drawn up for the management of the property by S.A. National Parks, as has been undertaken in the West Coast National Park.
National Veld and Forest Fire Act (Act 101 of 1998)	The Act provides for a variety of institutions, methods and practices for achieving the combating of veld, forest and mountain fires. The Act regulates the establishment, registration, duties and functioning of fire protection associations, which must deal with all aspects of veldfire prevention and fire fighting. It also provides for the prevention of veldfires through a fire danger rating system and places a duty on owners to prepare and maintain firebreaks. Furthermore, it places a duty on all owners to acquire equipment and have available personnel to fight fires.
National Water Act (Act 36 of 1998)	This Act provides for the reform and repeal of the Water Act, 1956 (Act 54 of 1956) as well as a number of other existing laws relating to water resources. In so doing, it reviews current practices and institutional arrangements for water management in the country.
Physical Planning Act (Act 125 of 1991)	This Act sets out South Africa's planning framework, i.e. regulates the levels at which plans operate, the responsibility for their drafting and implementation and their contents. In terms of this Act, policy and structure plans (SDFs) should promote the orderly development of the area to which they relate for the benefit of all its inhabitants.
White Paper on Agriculture (Department of Agriculture, 1995)	The White Paper (Department of Agriculture, 1995) mandates an agricultural sector characterised by a range of farm sizes that are market directed, with access to agricultural land being broadened through land reform and supported by the provision of appropriate services. Agricultural production is to be based on the sustainable use of natural agricultural and water resources. Of particular relevance to the formulation of the SDF, is the following: <ul style="list-style-type: none"> a) Productive agricultural land should be retained for agricultural use. b) All farmers are to be made aware of and be accountable for the sustainable utilisation of natural agricultural resources. c) The land-user's responsibility towards the land will include the rehabilitation of mismanaged natural agricultural resources.

<p>White Paper on the Development and Promotion of Tourism in South Africa (DEAT, 1996)</p>	<p>The White Paper on Tourism (DEAT, 1996) contains goals, principles and decision-making guidelines for tourism development in South Africa. Of particular relevance to the ODM are the principles of:</p> <ul style="list-style-type: none"> a) Harnessing the tourism industry to promote the quality of life of all South Africans, mitigating environmental problems and protecting the cultural heritage of the country. b) Mandatory use of IEM procedures, conducting on-going social and environmental audits and executing environmental management practices for all new tourism projects. c) Ensuring that tourism development does not deprive communities of access to coastal resources needed for their livelihoods. d) Emphasising the diversity of the tourism product of South Africa. e) Private sector provision of tourism facilities and services at national parks and protected areas. f) Provision of infrastructure to improve the accessibility and unleash the tourism potential of rural areas, in a manner that minimises environmental impacts.
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12.2.11 LOCAL AGENDA 21

As described above, the South African government is a signature to the Agenda 21 agreement, which is an international programme, adopted by some 178 governments, to put sustainable development into practice around the world. Agenda 21 reflects global consensus and political commitment on developmental and environmental co-operation.

The Local Agenda 21 was developed as a result of South Africa's obligation towards the international Agenda 21 agreement, and is defined as a local-government-lead, community-wide, and participatory effort to establish a comprehensive action strategy for environmental protection, economic prosperity and community well-being in the local jurisdiction or area. This requires the integration of planning and actions across economic, social and environmental spheres. Key elements are community participation, assessment of current conditions, target setting for achieving specific goals, monitoring and reporting (Department of Environmental Affairs and Tourism, 1998).

The ODM fully supports the Local Agenda 21 and aims to give practical effect to, *inter alia*, the following themes of the Local Agenda 21 through its IDP and this SDF:

- a) Promoting sustainable use of resources.
- b) Preventing pollution.
- c) Conserving biodiversity.
- d) Meeting the basic needs of local communities.
- e) Providing access to the skills, knowledge and information needed to enable people to play a meaningful role in society.
- f) Providing opportunities for culture, leisure and recreation to all.
- g) Developing human settlements that have appropriate scale and form.
- h) Establishing appropriate links with other parts of the world.

The above themes can be promoted by giving practical effect to the following six key elements of the Local Agenda 21 (DEAT, 1998):

- a) Promoting the local authority's own environmental performance.
- b) Integrating sustainable development aims into the local authority's policies and activities.
- c) Promoting public awareness and education.
- d) Consulting and involving interested and affected parties.
- e) Establishing appropriate partnerships.

- f) Measuring, monitoring and reporting on progress towards sustainability.

12.3 PROVINCIAL CONTEXT

It is generally recognised that the PGWC has undertaken pioneering work regarding the implementation of sustainable development principles throughout the province. Innovate bioregional planning is achieved, in particular in the ODM, in accordance with the following:

12.3.1 WESTERN CAPE PLANNING AND DEVELOPMENT ACT

Section 57(6) of the Western Cape Planning and Development Act, 1999 (Act 7 of 1999) (Schedule IV: *General Planning and Development Principles*) presents primary legislative context for the Overberg Spatial Development Framework, with the following sections being particularly relevant:

SECTION 1: Principles of Planning and Development Legislation

Administrative practice, by-laws, laws, regulations, policy and guideline documents on planning and development should:

- (i) be clear and generally available to those who are likely to be affected thereby;
- (ii) provide guidelines and information to those affected thereby, in addition to serving as regulatory measures;
- (iii) be aimed at promoting trust and acceptance among those likely to be affected thereby, and
- (iv) give further content to fundamental rights as set out in the Constitution.

SECTION 6: Principles of Sustainable Development

Sustainable development should be promoted by:

- (i) promoting development within the fiscal, institutional and administrative means of the province;
- (ii) promoting the establishment of viable communities;
- (iii) promoting sustained protection of the environment;
- (iv) meeting the basic needs of all communities in an affordable manner, and
- (v) ensuring the safe use of land, with regard to factors such as geological formations and dangerously undermined areas.

SECTION 7: Environmental Principles

Development must be based on the following environmental principles:

- (i) Development should harmonise with the ecological characteristics of the environment.
- (ii) Development should heed the natural processes, which control any specific environment.
- (iii) Development in unsuitable environments, such as areas with a higher water table, swamps, flood plains, steep slopes and areas sensitive to drift-sands, should be discouraged.
- (iv) Development planning should heed carrying capacity restrictions, especially with regard to water shortages.
- (v) Development planning should heed the aesthetic properties of landscapes and the environment.

Furthermore, in the 'environmental guarantee' clause of the Bill of Rights Section of the South African Constitution, 1996 (Act 108 of 1996) it is stated that every person shall have the right to the following:

- (a) An environment that is not harmful to his or her health or well-being.
- (b) To have the environment protected for the benefit of present and future generations, through reasonable legislative and other measures, which:
 - (i) prevent pollution and ecological degradation;
 - (ii) promote conservation; and
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

12.3.2 WESTERN CAPE BIOSPHERE RESERVE DRAFT BILL

The purpose of the Western Cape Biosphere Reserve Draft Bill (December 2003) includes the following:

- a) Providing an application procedure for the establishment of biosphere reserves.
- b) Establishing a provincial entity to manage a Provincial Biosphere Reserve Programme.
- c) Facilitating the establishment of biosphere reserves.
- d) Facilitating biosphere reserve funding, and providing for matters incidental thereto.

The following stipulations of the Draft Bill are of particular relevance to the establishment of the proposed Boland Biosphere Reserve, namely:

- (1) *A preliminary application for the establishment of a biosphere reserve may, in the format as set out in Schedules 1 and 2 hereto, be submitted to the responsible Minister by any of the following institutions or individuals –*
 - (a) *a provincial department;*
 - (b) *a municipality;*
 - (c) *an individual or group of individuals, including, but not limited to, landowners, conservation agencies, non-governmental organisations, or components of civil society; [or]*
 - (d) *an institution established in terms of this Act, or*
 - (e) *any combination or all of the above*
- (2) *The preliminary application for a proposed biosphere reserve must include the comment of any foreseen other stakeholders and the applicable municipality or municipalities, as well as a statement setting out the extent of compatibility of the proposal with the Provincial Integrated Development Plan, the Provincial Spatial Development Framework, any applicable provincial or regional spatial development plans and any applicable district or local integrated development plans, spatial development frameworks and spatial development plans.*
- (3) *The responsible Minister must inform the National Minister of the receipt of the preliminary application.*
- (4) *The responsible Minister may do one of the following –*
 - (a) *approve the preliminary application ;*
 - (b) *approve the preliminary application subject to any additional requirements, recommendations and conditions of him/herself or the Department; or*
 - (c) *reject the preliminary application and submit written reasons for the rejection to the applicant.*

- (5) *The responsible Minister may at any stage consult with the applicant or relevant parties and/or invite representations.*
- (6) *If the preliminary application is rejected in terms of section 2(4)(c), the applicant must be given the opportunity to amend the preliminary application in consultation with the other stakeholders, or to make representations to the responsible Minister.*
- (7) *If the preliminary application is approved in terms of Section 2(4)(a) or (b), the responsible Minister must –*
 - (a) *permit the applicant to proceed with –*
 - (i) *the compilation of an application to UNESCO for the proposed biosphere reserve to be designated as a biosphere reserve that is to be part of the World Network of Biosphere Reserves within the framework of UNESCO's Man and the Biosphere Programme, and*
 - (ii) *the compilation of a spatial development plan for the proposed biosphere reserve in accordance with the provisions of section 4A or 5 of the Planning and Development Act, 1999 inclusive of the process set out in section 4A(3)(c) to (e) and also referred to in section 5(3)(b)(ii) of that act, and*
 - (b) *make the choice between section 4A and 5 as contemplated by paragraph (a)(ii) of this subsection, in consultation with the Municipality or Municipalities concerned and taking into account the practical situation as to whether the proposed biosphere reserve falls entirely within the area of jurisdiction of one district or local municipality or not.*
- (8) *The responsible Minister must inform the national Minister of the result of the assessment of the preliminary application.*

Application to Provincial Government

- (1) *The applicant must submit the application to establish a Biosphere Reserve in accordance with the prescribed UNESCO procedure, to the responsible Minister.*
- (2) *The responsible Minister must consider the application and inform the National Minister accordingly. The responsible Minister must consult with the Western Cape MAB Committee in this regard, when established in terms of this Act.*
- (3) *If, after considering the application, the responsible Minister is satisfied that it complies with the MAB criteria for the designation of a biosphere reserve, he or she must submit such application to the provincial Cabinet for approval.*
- (4) *After approval and endorsement by the provincial Cabinet, the responsible Minister must submit the application via the national Minister, to UNESCO.*
- (5) (a) *During the course of the applicant proceeding with the application and the application being evaluated by the responsible Minister, the Provincial Cabinet and UNESCO, the Head of Department must monitor and guide the process of compiling a spatial development plan as contemplated by section 2(7)(b), and must ensure that the steps implied by the process as referred to in section 2(7)(b) are carried out.*

- (b) *After completion of the process contemplated by section 2(7)(b) and (c) and paragraph (a) of this subsection, the Head of Department or the Municipal Manager concerned, as the case may be, must arrange for submission of the draft spatial development framework to the responsible Minister or the Council, as the case may be; provided that such submission may not take place prior to the UNESCO decision contemplated by subsection (4) being transmitted.*

12.3.3 OTHER ENABLING PROVINCIAL LEGISLATION AND POLICY

Table 25 below summarises the provincial legislation and policy that collectively form the legislative basis for the preparation of this SDF:

Table 25: Enabling provincial legislation and policy.

ACT / ORDINANCE	PRIMARY FUNCTIONS
Cape Nature and Environmental Conservation Ordinance, 1974 (No. 19 of 1974)	Regulates the establishment and management of provincial reserves and private nature reserves, the protection of wild animals, fish in internal waters and flora in the Cape Province.
Land-Use Planning Ordinance (Ordinance 15 of 1985)	The Physical Planning Act makes provision for land-use planning and control to be addressed through the Ordinances of the various provinces. In the Cape Province the Land-Use Planning Ordinance, 1985 (No. 15 of 1985) (LUPO), controls land-use planning. It provides the legal basis for: <ul style="list-style-type: none"> a) Zoning schemes b) Rezoning of land
Western Cape RDP Policy Document: Provincial Government: Western Cape	The Provincial Growth and Development Strategy (PAWC, 1996) puts forward a strategy to address the problems of poverty and under-development of the Western Cape Province, and to enable the province to contribute in the reconstruction and development of the country as a whole. The strategy is intended to lead to the formulation of development plans, programmes and projects to facilitate an integrated socio-economic and spatial development approach for the Western Cape Province.

12.4 PROVINCIAL REGIONAL PLANNING POLICY

12.4.1 BIOREGIONAL PLANNING FRAMEWORK FOR THE WESTERN CAPE

The Overberg District Municipality has directed that this SDF be prepared in accordance with the bioregional planning methodology advocated by PGWC in the *Bioregional Planning Framework for the Western Cape* (PGWC, October 2000) and the *Draft Manual for Bioregional Planning in the Western Cape* (PGWC, 2003).

The *Bioregional Planning Framework for the Western Cape* was prepared by PGWC to serve the following primary purposes:

- a) It is to serve as both a reference and framework within which a consensus approach to managing our resources in a sustainable manner can be promoted within the context of Act 7 of 1999.
- b) In particular, it is intended to support the endeavours of district municipalities and local municipalities in the preparation of their IDPs and lower sphere planning, such

- as SDPs and other sectoral plans, as well as cross-boundary co-ordination in terms of bioregional planning and management principles.
- c) It is to provide a framework for the delimitation of bioregions in the Western Cape Province based on bioregional planning principles.
 - d) It is to provide a framework for the delimitation of cluster biosphere reserves in the Cape Floral Region based on UNESCO's Biosphere Reserve principles.
 - e) It is to provide guidelines for the land-use classification of the entire land surface of the Western Cape Province in accordance with defined *Spatial Planning Categories* (SPC's), which are based on a broad spectrum of environmental parameters (refer to Chapter 17 below for detail description of SPC's).

In the Bioregional Planning Framework, guidelines are proposed for the implementation of fundamental phases of bioregional planning and for specific land management issues. These phases and issues include the following:

- (a) Conceptual delimitation of bioregions.
- (b) Designation of spatial planning categories in the ODM.
- (c) Specific land management issues, such as the rezoning of land outside of urban areas, determining place-specific design guidelines and determining appropriate scale for urban development.

Bioregional planning and management is essentially a **place-specific** approach, which recognises that any *place* has a distinct character and meaning to the people living in that place and those people that visit the place. These meanings and characteristics need to form the basis of any tourism branding, marketing, development, land-use and management strategies of the ODM.

If place-specific planning is to become the central focus of collective decision-making in the future, it is of paramount importance to achieve a better understanding of the ODM and its component units as distinct places and to establish a common framework to facilitate future planning and management of these places. In short, the people of an area need to consider their places in practical, qualitative terms and agree on a realistic policy framework.

The application of a site-specific planning and design approach for the ODM will include finding answers in respect of the following:

- a) Future unfolding of settlements in a manner that will promote a high quality environment, which will enhance both the quality of life of the inhabitants and the experience of tourists.
- b) Collective decision-making in respect of future development.
- c) Environmental sustainability (including both the natural and the cultural environment).

12.4.2 COASTAL ZONE POLICY FOR THE WESTERN CAPE PROVINCE

The coastal plains of the ODM fall within the coastal zone of the Western Cape, large areas of which are subject to extensive urban development and unsustainable activities. In order to ensure the sustainability of the coastal zone, the draft *Coastal Zone Policy* (CZP) for the Western Cape was prepared by the PGWC. The CZP emphasises the sensitivity of the coastal zone and provides development guidelines that are particularly relevant to the management of coastal areas within the ODM.

To ensure the continued derivation of social and economic benefits from the coast, its use and development need to be properly managed. A co-ordinated and integrated management approach was, therefore, required.

To facilitate such an approach, coastal zone management policies and a spatial framework, supported by a legal and institutional framework, needs to be put into place. Such a spatial policy framework would ensure that the development and management of coastal resources are integrated and co-ordinated in terms of a collective, negotiated vision and environmental (including social) goals.

In accordance with the bioregional planning approach, which form the basis of the CZP, a holistic planning view was adopted for the formulation of the CZP. The coastal zone was, consequently, redefined to include the entire coastline, the coastal plains, from the primary coastal watershed to the coastline, and the marine environment, up to the outer limit of the continental shelf (-200 m) (refer to Diagram 3).

In accordance with the above, the coastal zone is that area which derives its character mainly from the direct interaction between land and sea and, indirectly, from inland mountain catchment areas and the open sea to the Exclusive Economic Zone and beyond.

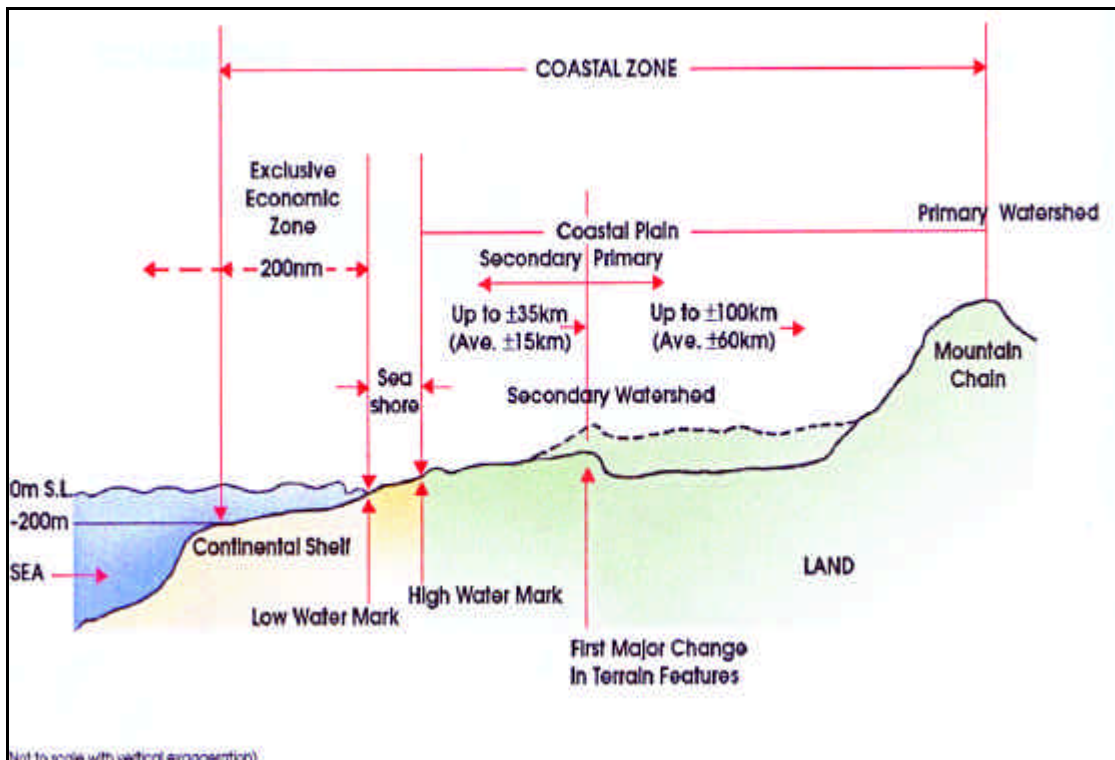


Diagram 3: Definition of the coastal zone (From: Coastal Zone Policy for the Western Cape, PGWC, 2001).

The coastal policy addresses the integrated relationship between ecological processes and the needs and aspirations of local communities, and is generally recognised as being central to the achievement of sustainable development. In the Coastal Zone Policy, guidelines are proposed for a place-specific approach to planning as well as policies and guidelines for specific land management.

12.5 REGIONAL CONTEXT

12.5.1 OVERBERG IDP

The Integrated Development Plan (April 2002) of the Overberg District Municipality is a comprehensive document guiding the development of the Overberg district in a sustainable manner. The Overberg IDP were compiled according to the principles and protocols of existing international, national and provincial norms, standards, legislation and regulations.

The Overberg IDP identified three overarching regional development objectives or outcomes that was used as a guideline throughout the IDP process, namely:

- a) A 100% delivery of the basic services of housing, sanitation, health, water and electricity supply as a joint need between Overberg District Municipality and the four local municipalities within the region.
- b) Human development, including all the actions necessary to enable individuals and communities to develop and be empowered to their full potential, e.g. affordable skills training, etc. In the process attention should be paid to the development of people from infant to adult phases. The district municipality should act as facilitator and coordinator for better provision of training and education over the full spectrum.
- c) Economic development, including the promotion of tourism, job creation and capacity building for entry into the economy.

In order to achieve the above-mentioned objectives, the following aspects were identified by the municipality as building blocks:

- a) All infrastructure including the provision of infrastructure for economic development.
- b) Environmental management and crime prevention as joint need and necessity for both human and economic development.
- c) Health and social services as point of departure for human development.
- d) The promotion of sport and recreation and the provision of facilities, with special emphasize on multi-purpose community centurms where people can relax and can be further trained/developed.

The remainder of the document is primarily focused on the packing of strategies and projects in such a manner that it will focus on the overarching objectives and will enable the realization thereof.

12.5.2 STRATEGIC ENVIRONMENTAL ASSESSMENT (SEA) FOR THE ODM

The purpose of the *Broad, Preliminary Strategic Environmental Assessment for the Overberg District Municipal Area* (Duncan Heard Environmental Consultants, 2003) is to formally introduce SEA as a planning tool for the Overberg IDP. SEA is becoming an accepted and widely used instrument for integrating environmental issues into the formulation of plans and programmes.

A broad assessment of the state of the environment in the Overberg District Municipality was achieved by assessing data in GIS format. The following conclusions have been made:

- a) The entire Overberg area is environmentally sensitive.
- b) The remaining natural environment is extremely vulnerable to indiscriminate and inappropriate development and land-use.

- c) To avoid deterioration in the quality of life for the people of the Overberg, it is vital that future development is sustainable from economic, social and environmental perspectives.

The following recommendations were made:

- a) Future planning must be proactive and follow the SEA process while taking into account the National Environmental Management Principles in terms of the National Environmental Management Act, 1998 (Act 107 of 1998).
- b) Any development must follow the Integrated Environmental Management code of practice.
- c) To strategically build up a better understanding of those parameters that will more effectively inform planning for sustainable development, we need to quantify:
- i) present and future environmental and human water requirements;
 - ii) the rate of infestation by invasive alien vegetation (as well as the environmental and financial costs);
 - iii) the potential for agricultural expansion;
 - iv) the potential for the exploitation of non-renewable resources; and
 - v) the potential for urban and industrial expansion.
- d) Once areas/resources have been identified for future development/exploitation and prioritized, SEAs must be carried out as part of a detailed proactive planning process.
- e) The Coastal Zone Policy for the Western Cape must be refined and implemented.
- f) Environmental data acquired through new studies should be supplied to the GIS unit at WCNCB (Cape Planning Unit) to update the database.

12.6 SUPPORTING INITIATIVES

This SDF builds upon and, in turn, provides a statutory framework for the implementation of the following primarily eco-centered initiatives:

12.6.1 CAPE ACTION FOR PEOPLE AND THE ENVIRONMENT

The ***Cape Action for People and the Environment*** (CAPE) is a project developed in partnership with the Global Environment Facility (GEF) to secure the future of the Cape Floral Kingdom. The CAPE project was made possible by a grant from the GEF. The CAPE project was established to develop a long-term strategy to conserve biodiversity in the terrestrial, marine and freshwater ecosystems of the Cape Floral Kingdom.

The CAPE Strategy was formulated in a participative process and a vision, an overall goal and three components and a set of objectives for each component was identified.

CAPE Vision

We, the people of South Africa, as proud custodians of the Cape Floral Kingdom, will protect and share its full ecological, social and economic benefits now and in the future.

Goal of CAPE

By the year 2020, the natural environment and biodiversity of the Cape Floral Kingdom will be effectively conserved, restored wherever appropriate, and will deliver significant benefits to the people of the region in a way that is embraced by local communities, endorsed by government and recognised internationally.

Based on the situation assessment and analysis of threats, three overarching themes and its strategic components were developed.

THEMES	STRATEGIC COMPONENTS
Conserving biodiversity in priority areas	a) Strengthening on- and off-reserve conservation b) Supporting bioregional planning
Using resources sustainably	a) Conserving biodiversity and natural resources in catchments b) Improving the sustainability of harvesting c) Promoting sustainable nature-based tourism
Strengthening institutions and governance	a) Strengthening institutions b) Enhancing co-operative governance c) Promoting community involvement

CAPE has produced a Strategy and Action Plan. Specific objectives of the Strategy include the following:

- a) Establishing an effective reserve network, enhancing off-reserve conservation, and supporting bioregional planning.
- b) Developing methods to ensure sustainable yields, promoting compliance with laws, integrating biodiversity concerns into catchment management, and promoting nature-based tourism.
- c) Strengthening institutions, policies and laws, enhancing co-operative governance and community participation, and supporting continued research.

This SDF was based upon the latest information put forward by the CAPE project. It will be in compliance with the ideals of the CAPE project and will promote its practical application.

The contact details of CAPE are the following:

Website: www.capeaction.org.za
 Co-ordinator: Trevor Sandwith
 Email: info@capeaction.org.za
 Address: Private Bag X7, Claremont, 7735

12.6.2 SUCCULENT KAROO ECOSYSTEM PLAN

The Succulent Karoo Ecosystem Plan (SKEP) is a bi-national initiative, which strives to conserve an internationally important resource in the face of a wide-range of local, social and economic opportunities and challenges. *Conservation International* (CI) facilitates the SKEP process, with support from the *Critical Ecosystem Partnership Fund* (CEPF).

SKEP aims to promote sustainable land-use and conserve the unique biological diversity of the Succulent Karoo. Using a new scientific approach, SKEP is assessing what aspects of the region's biodiversity need to be conserved. Based on this assessment, SKEP is using a participatory process to identify what actions are needed to achieve its goals. SKEP is about developing partnerships and capacity.

The overall vision for SKEP is to have:

'The people of the Succulent Karoo take ownership of and enjoy their unique living landscape in a way that maintains biodiversity and improves livelihoods now and into perpetuity.'

SKEP has four components, dealing with:

- a) Biodiversity
- b) Socio-political issues
- c) Resource economics
- d) Institutional issues

Through integrating the four components, SKEP seeks to develop an overarching plan for biodiversity conservation in the Succulent Karoo Biome that will:

- a) Provide a hierarchy of priority actions to guide conservation efforts and donor investment in the biome.
- b) Build human resource capacity to implement the plan by including training and mentorship activities as part of the planning process.
- c) Generate the institutional and governmental support required to ensure its effective implementation.

The contact details of SKEP are the following:

Website: <http://cpu.uct.ac.za>
 Co-ordinator: Tessa Mildenhall
 Email: t.mildenhall@conservation.org
 Address: Private Bay X7, Claremont, 7735

12.6.3 AGULHAS BIODIVERSITY INITIATIVE (ABI)

The Agulhas Biodiversity Initiative (ABI), a joint partnership between SANParks and Fauna & Flora International is an integral component of the CAPE Program, which is designed to address the main threats to the globally significant lowland fynbos biodiversity of the Agulhas Plain and to improve the livelihoods of the local communities living in the Agulhas Plain through a multiplicity of inter-linked conservation, development and socio-economic activities.

ABI has four major components, namely:

a) Conservation planning and management systems in the Agulhas Plains:

- (i) Increase land under conservation management;
- (ii) Institutional needs assessment and capacity building for the key stakeholders;
- (iii) Collaborative conservation management system for Agulhas Plain, integrating Agulhas National Park, provincial nature reserves, reserves managed by local authorities, conservancies;
- (iv) Fire management strategy;
- (v) Identify priority areas for the alien clearance programme; and
- (vi) Assessment of the potential to declare the area a biosphere reserve.

b) Sustainable use of wild fynbos flowers:

- (i) Targeted research on current harvesting situation, assessment of the resource base;
- (ii) Design and implement sustainable levels of harvesting at the ecosystem level;
- (iii) Biological monitoring programme for harvested fynbos;
- (iv) Establishment of a certification system for sustainably harvested wild fynbos flowers;
- (v) Micro-enterprise development for the local communities; and
- (vi) Market survey and market development.

c) Nature-based tourism strategy:

- (i) Assessment of potential tourism opportunities;
- (ii) Capacity building for the local communities to participate in nature based tourism;
- (iii) Tourism monitoring system; and
- (iv) Develop and implement the tourism strategy for Agulhas Plain.

d) Build local support for biodiversity conservation in the Agulhas Plain – develop and implement a Fynbos Awareness Strategy:

- (i) Review of status, trends and historical context of fynbos ecosystems and its ecological, cultural and economic significance;
- (ii) Identify key constraints to conservation, due to lack of awareness;
- (iii) Identify the target audience and the delivery mechanisms; and
- (iv) Implementation.

SANParks envisaged expansion program will be contextualised within the GEF-funded Agulhas Biodiversity Initiative (ABI) and the initiatives to establish a biosphere reserve for the Agulhas Plain.

The medium-term land consolidation goals of the Agulhas National Park includes the strategic and opportunistic expansion of the current extent of the park to include the key properties along the coastal strip between Rietfontein and Paapekuilfontein with the establishment of strategic links to the Soetanyberg and Soetendalsvlei. The long-term projected planning domain, of some 120 000ha, is broadly described as the terrestrial area bounded by the coastal strip between Cape Agulhas to Quoin Point and inland to the R319 along it's eastern boundary and the R317 from Heuningklip to Die Dam along it's northern and western boundary. Long-term expansion potential will include connecting the park to the area east of the R319 to link with the De Mond Provincial Nature Reserve, northward expansion of the park to include the Elim-Hagelkraal-Henuningrug node and the establishment of a marine reserve in areas abutting the terrestrial extent of the park.

The contact details of ABI are the following:

Co-ordinator: Tertius Carinus
Email: tertiusc@parks-sa.co.za
Address: P.O. Box 120, L'Agulhas, 7287

13 PLANNING APPROACH

13.1 BIOREGIONAL PLANNING

International experience has shown that **biodiversity conservation** is a prerequisite for sustainable development, and that for biodiversity conservation to succeed, the maintenance of environmental integrity (as defined by ecological, economic and social criteria) must be one of the primary determinants of bioregional delimitation and land-use planning. This view has, during the past decade, evolved into a planning and management approach generally known as **bioregional planning**, which is increasingly being employed as a management system by, amongst others, UNEP and the WRI to promote sustainable development practices world-wide.

In the *Manual for Bioregional Planning in the Western Cape* (PGWC, 2003), bioregional planning is defined as *'planning and land management that promote sustainable development by recognising the need for a balanced relationship between environmental integrity, human well-being and economic efficiency, and to give effect and recognition thereto, within a specific geographical area, the boundaries of which were determined in accordance with environmental and social criteria'*.

In practical terms, bioregional planning refers to the 'matching' of human settlement and land-use patterns with the parameters of ecological systems, and the planning, design and development of the human-made environment within these parameters in a manner that ensures environmental sustainability.

The above definitions imply that the relationship between the three imperatives for sustainable development, namely environmental integrity, human-well-being and economic efficiency should be recognised in a balanced and integrated manner in the context of a specific place, and never as stand-alone issues in general terms.

In this regard, bioregional planning implies an integrative concept, one that amalgamates the learning and perspectives of several similar concepts, such as ecosystem management and biosphere reserve planning. It is *'an organised process that enables people to work together, think carefully about the potential and problems of their region, set goals and objectives, define activities, implement projects, take actions agreed upon by the communities, evaluate progress and refine their approach'* (Miller, 1996).

Bioregional planning requires a **value shift** away from the sectoral nature of institutions (i.e. where environmental issues are dealt with by environmentalists, economic issues by economists, and social issues by social scientists), to an all-embracing approach where the sustainable development challenge is addressed in an integrated and holistic manner.

13.2 CHARACTERISTICS OF BIOREGIONAL PLANNING

Bioregional planning is designed to maximise the likelihood that protected area systems will collectively sample biodiversity. It is a flexible decision support framework for assessing the best resolution to resolve inter-sectoral conflicts over the use of land and sea, and it provides guidance regarding integrative local government planning and community group projects.

The bioregional planning methodology provides an essential tool in bridging the divide between conservation and development tension. The application of this methodology strengthens the planner's ability to incorporate sustainable development practices in the planning process.

Bioregional planning is furthermore characterised by the following (Miller, 1996):

- a) **Adaptive management:** Bioregional programmes are operated on an experimental basis, from which lessons may be drawn from experience to respond appropriately.
- b) **Biotic viability:** Bioregional management programmes embrace regions large enough to include the habitats and ecosystem functions and processes needed to make biotic communities and populations ecologically viable in the long-term. These regions must be able to accommodate migratory patterns, anticipate nature's time cycles and absorb the impacts of global change.
- c) **Co-operative skills development:** Communities and public and private organisations, together, must locate and mobilise the skills, knowledge, and information needed to manage the area.
- d) **Economic sustainability:** The maintenance of livelihoods and the economic wellbeing of people living and working within the bioregion, including those in industry, and especially in the matrix, must be encouraged.
- e) **Full involvement of stakeholders:** All parties who can affect or benefit from the resources in the region should be fully involved in planning and managing the bioregional programme. Of primary importance in this regard, is building the local capacity to participate in, negotiate, and perform the various tasks involved.
- f) **Institutional integration:** Alliances between institutions are to be forged to close gaps, minimise overlap and make management and investment in the region more efficient.
- g) **International co-operation:** Because some ecosystems cross international boundaries and, in some cases, extend globally along animal migration routes or along venues where endangered species are traded, international co-operation agreements for debate, and mechanisms for joint research, information management and investments must be part of the biodiversity management programme. The MAB Programme is particularly suited to this purpose.
- h) **Leadership and management:** The leadership to establish bioregional programmes may come from public agencies, or from the community of residents and resource users. The tasks of convening stakeholders, preparing and negotiating vision statements, and planning and implementing agreed-upon activities can be shared co-operatively between public and private entities, or be fully community based.
- i) **Reliable and comprehensive information:** All stakeholders must have at their disposal the critical information needed to facilitate biodiversity management. GIS technology is to be used to help stakeholders envision their region and its distinctive features clearly. GIS will help them to model options and scenarios for the future. This bioregional information system (BIS) program¹⁶ assembles a comprehensive and ecosystem-level GIS consisting of biophysical, social, economic, and cultural databases.

¹⁶ Concept used by the Ecotrust organisation for incorporating a bioregional framework in a GIS.

- j) **Research and monitoring:** Research and inquiries should focus on people-environment interactions, the development of innovative methods for managing natural resources, and the long-term monitoring of environmental factors and the impact of management practices.
- k) **Restoration:** Where the viability of some habitats or ecological functions have been impaired upon through excessive or inappropriate use, these areas are to be rehabilitated.
- l) **Social acceptance:** Any proposals for changes in the way of life and livelihoods of the residents and local peoples, including indigenous communities, need to be acceptable to them. All stakeholders warrant the opportunity to participate in programme management and implementation.
- m) **Structure of interrelated cores, corridors and matrices:** These programmes include core nature areas that feature representative samples of the region's characteristic biodiversity. Ideally such sites, which may already be designated as protected areas, should be linked by corridors of natural or restored natural plant cover to permit migration and adaptation to global change. Both the core sites and corridors should be nested within a matrix of mixed land uses and ownership patterns.
- n) **Use of knowledge:** Scientific, local and traditional knowledge should be employed in planning and management activities. Biology, anthropology, economics, engineering and other related fields are to be tapped. Such knowledge helps stakeholders and programme managers to anticipate nature's long and short cycles and to track global change.

13.3 THE CONCEPT OF BIOREGIONALISM

The concept of bioregionalism identifies geographical regions as areas whose cohesiveness is determined by shared and interrelated physical and cultural traits, as opposed to the traditional and arbitrary definitions established by political boundaries (Sale, 1986).

Bioregionalists believe that *'bioregionalism calls for human society to be more closely related to nature, and to be more conscious of its locale, or region, or life-place. It is a proposal to ground human cultures within natural systems, to get to know one's place intimately in order to fit human communities to the Earth, not distort the Earth to our demands'*. Bioregional distinctions are to be based on climate, biotic patterns and similarities, watersheds, landforms, elevation and physiography, historical and prehistorical activities, shared spiritual presence, and functional demographic patterns (Sale, 1986).

'The concept of bioregionalism has resurfaced in the past three decades. It is as ancient as the human culture. Bioregionalism makes sense. Since our culture has lost its sense of direction, we now need a conceptual framework and theory to follow – bioregionalism can fulfil this need' (Shapiro, 1993).

Alexander (1990) describes a number of characteristics of bioregionalism, including the following:

- a) A belief in *natural*, as opposed to political or administrative, regions as organising units for human activity.
- b) An emphasis on a practical *land ethic* to be applied at a local and regional scale.
- c) The favouring of locally and regionally diverse cultures as guarantors of environmental adaptation, in opposition to the trend towards global monoculture.

The concept of bioregionalism is based on the recognition that the potential to promote sustainable development would be greatly enhanced by cultivating an appreciation, respect and care for the place within which one lives, and recognising that much of life's sustenance can be produced locally.

Bioregionalism is an example of co-operative economies, local people co-operating with each other to develop self-reliant, locally-based and community controlled economies within a bioregion. A bioregional economy is about more efficient use of local resources through more effective development of human beings and human communities. Bioregional economies do not mean insularity, or the end of trade. By encouraging creativity of bioregions instead of global monoculture, bioregional economies enrich the possibilities for cultural exchange and result in the development of a complex regional economic network (Laidler, 2002).

The bioregionalism vision is rooted in the human scale, the limited, coherent, nature-based region in which we take our place within the natural systems of the living earth and the natural interplay of species that inhabit there (Sale, 1986).

Bioregions are defined both, by cultural and environmental attributes. The bioregional context provides an integrative setting for local government planning and amelioration of development impacts. It provides a framework for community-based programmes and public-private co-operation for complementary initiatives to minimise external impacts on reserves. Therefore bioregional frameworks integrate and maximise sectoral and cultural benefits from the region (including its core protected areas) and protect biological diversity and ecological functioning outside of reserves.

Successful implementation of bioregional principles requires developing guidelines for land-use planning in terms of which a diverse landscape can be achieved, where human needs can be addressed, and where water, soil and biodiversity can be conserved.

Bioregions also imply the following:

- a) They offer the most opportune spatial scale for human governance and socio-economic development.
- b) Governance within a bioregion should be democratic and subject to local control, should nurture a high quality of life, and should be judged on its ability to achieve social justice.
- c) Economic development within a bioregion should be locally regulated, based on the use of appropriate technology and focussed on self-reliance (with limited, value-added export manufacturing), and should expand only to the extent that component ecosystems can support utilisation in a sustainable manner.
- d) The political and economic interdependence of bioregions should be institutionalised at all levels through co-operative governance.

13.4 WHAT IS A BIOREGION ?

Miller (1996) defines a bioregion as a *geographical space that contains one whole or several nested ecosystems characterised by landforms, vegetative cover, human culture and history as identified by local communities, governments and scientists.*

The IUCN describes a bioregion as a *land and water territory, the limits of which are not defined by political but the geographical boundaries of human communities and ecological systems.*

Berg (2002) defines a bioregion in terms of the unique overall pattern of natural characteristics that are found in a specific place. People are also an integral aspect of a place's life, as can be seen in the ecologically adaptive cultures of early inhabitants, and in the activities of present day inhabitants who attempt to harmonise in a sustainable way with the place where they live. The boundaries of a bioregion are best described by the people who lived within it, through human recognition of the realities of living-in-places.

From the above, it is clear that a bioregion refers to both the **geographical terrain** and a **terrain of consciousness** (i.e. to a place and the ideas that have developed about how to live in that place).

The administrative boundaries of municipalities, demarcate the statutory areas of jurisdiction of the various local authorities, while the internal ward boundaries are intended to provide for democratic representation on the local level. It is, however, recognised that mismatches exist between such statutory administrative boundaries and the domains people regard as their home territory, as well as ecosystem boundaries.

In this regard, it is noted that bioregions do not necessarily coincide with administrative or constitutional regions and can extend beyond the boundaries of such regions. It is of paramount importance to, as far as practically possible, align administrative with bioregional boundaries.

Provincial government is of the view that if such mismatches are not addressed, the potential of municipalities to involve the inhabitants of such areas constructively in planning and development processes will be undermined. In municipal planning terms, the bioregion is viewed as a regional planning unit that can be supra- or sub-municipal or more-or-less at the municipal level and, as such, is not in conflict with administrative boundaries but supplementary thereto.

As stated above, the bioregional planning methodology aims to provide a framework that would inform any future municipal demarcation with the aim to reconcile future municipal boundaries with defined bioregional parameters.

13.4.1 SCALE OF A BIOREGION

To be practical, communities, residents, resource managers and government agencies should be able to define the bioregion in accordance with the **'place'** that most residents and resource dependent people consider as their **'home'** (Miller, 1996).

There is no single right scale for a bioregion. It is important to note that bioregions can occur at any scale, as they are based on bio-factors that are not scale-dependent. Setting up the scale of the bioregion is essential to reaching shared individual and institutional goals. However, a programme of dialogue, scientific trial and error and adaptation over time, is the best way to determine a bioregion's boundaries (*Thus, the right scale is determined by dialogue and informed by science, technology information and social considerations*).

13.5 FUNDAMENTAL OBJECTIVES AND SUPPORTING ACTIONS TO ESTABLISH A FRAMEWORK FOR BIOREGIONAL PLANNING

The Global Biodiversity Strategy puts forward fundamental objectives and supporting actions to establish a framework for bioregional planning and management. These objectives strive to achieve the following:

a) Create institutional conditions to promote bioregional planning

Bioregional planning and management have clear ecological, economic and social advantages. To achieve the above objective, the IUCN proposed the following actions:

- (i) Develop new methods and mechanisms at bioregional level for participation in the planning process and for the resolution of conflicts.
- (ii) Give all communities the means to 'have a say' in the management and distribution of the region's resources.
- (iii) Establish inter-sectoral and inter-agency task forces to facilitate bioregional planning.

b) Incorporate biodiversity into the management of all biological resources

The mix of species in an ecosystem enables that system both to *provide* a flow of ecosystem services under given environmental conditions, and to *maintain* that flow if environmental conditions change. The loss of biodiversity therefore limits the resilience of the affected ecosystem, which in turn, may have direct negative economic implications.

c) Support bioregional conservation initiatives in the private sector

The bioregional planning methodology requires that conservation on private land becomes an integral part of the strategy. This, in turn, requires that forward planning must be done on a holistic bioregional basis.

Environmental health is the key to sustainable development. The primary threat to environmental health is fragmentation of community-supporting ecosystems. Fragmentation generally leads to a cycle of environmental degradation, which subsequently influences the well-being of the dependent communities. It is, therefore, of paramount importance that issues, such as **biodiversity conservation, economic growth, human resources development, and social development**, should be addressed when delimiting and managing bioregions.

Of importance for the successful application of bioregional planning principles and the implementation of biosphere reserves, is the recognition that the promotion of sustainable development ideals is process driven. Successful implementation of these principles and programmes is dependent upon the effective involvement of local communities in such endeavours, obtaining institutional co-operation and building the required capacity.

14 IMPLEMENTATION OF BIOREGIONAL PLANNING

The *Manual for Bioregional Planning in the Western Cape* (PGWC, 2003) provides a comprehensive description of how bioregional planning is to facilitate the preparation of an SDF. In accordance with this manual, the implementation of the bioregional planning methodology follows a sequence of integrated phases, all of which are to be applied within the legislative context described in the preceding chapters. The various phases and implementation mechanisms through which bioregional planning is implemented in the preparation of the SDF are illustrated by Diagram 4 below.

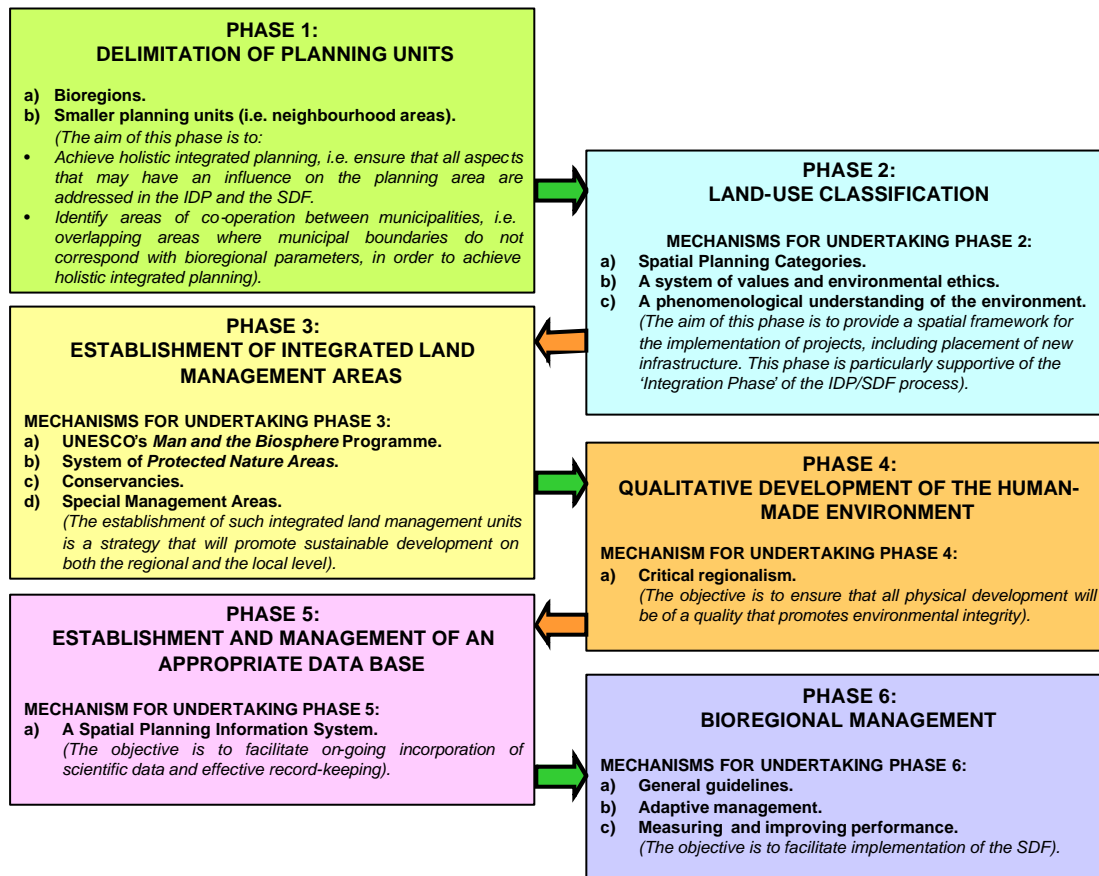


Diagram 4: Implementation phases of the bioregional planning methodology (From: *Bioregional Planning Manual*, PGWC, 2003).

14.1 APPLICATION IN THE PREPARATION OF IDPs, SDFs AND SDPs

PGWC's introduction of bioregional planning in provincial planning projects and its directive that the methodology has to be applied by local authorities undertaking planning projects, have opened an avenue to municipalities to implement the methodology through their IDPs, SDFs and SDPs. As stated above, the Overberg District Municipality, subsequently, directed that this SDF be prepared in accordance with the bioregional planning approach.

Diagram 5 below illustrates how the bioregional planning approach is to be applied in the preparation of IDPs, SDFs and SDPs. The diagram has to be read together with the *Spatial Development Framework Manual* that has been prepared by PGWC to facilitate the preparation of SDFs in the Western Cape (PGWC, 2003).

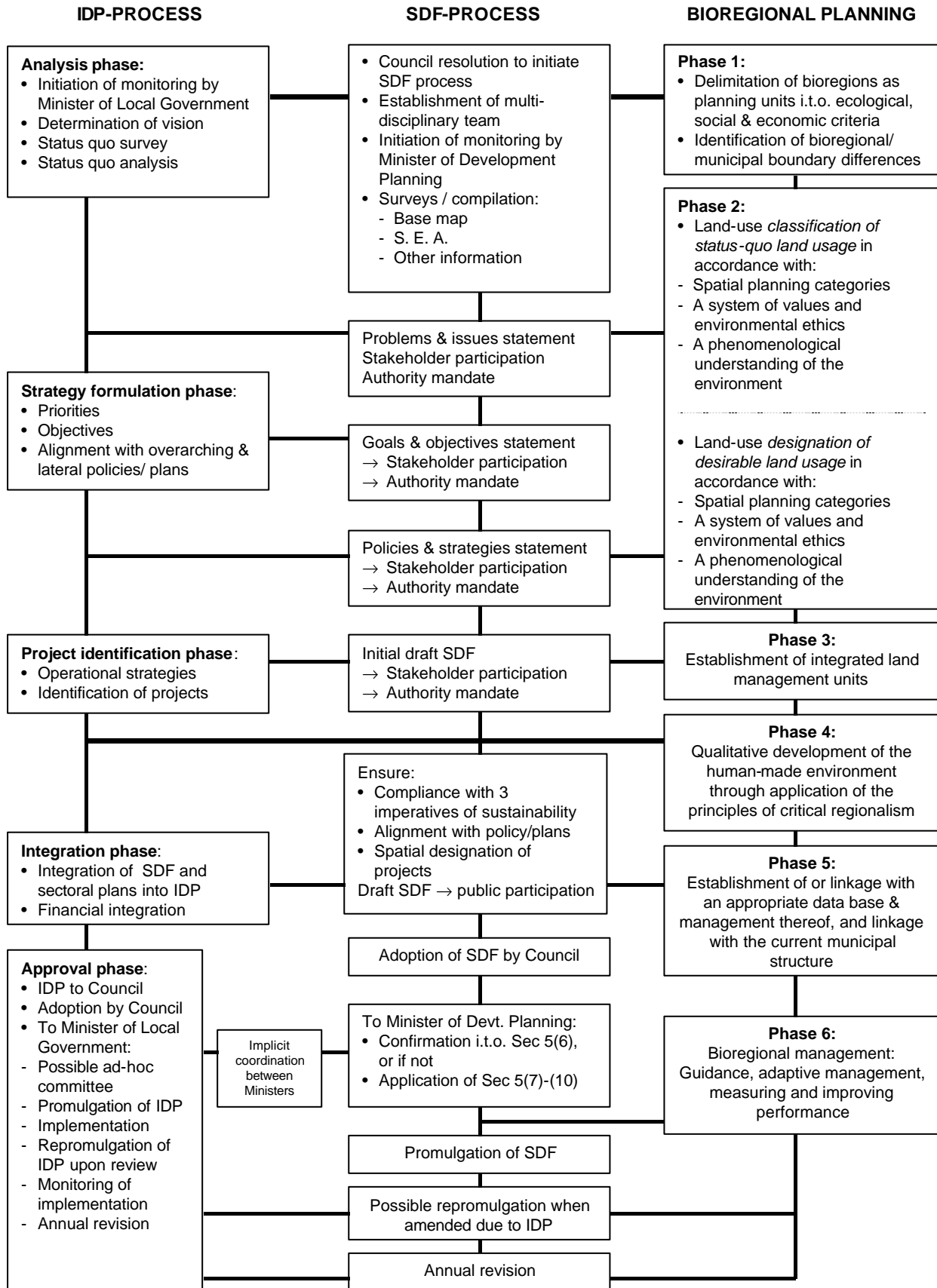


Diagram 5: Application of bioregional planning in the preparation of IDPs and SDFs (From: Bioregional Planning Manual, PGWC, 2003).

14.2 INSTITUTIONAL RESPONSIBILITIES

The institutional responsibilities regarding the implementation of bioregional planning and management at the provincial, district and local level include the following:

a) Provincial Level

PGWC is to provide the policy and legislative framework for the implementation of bioregional planning (refer to *inter alia* the delimitation of bioregions), take the lead in establishing a *Man and the Biosphere* Committee in the province, and assist in the establishment of biosphere reserves.

b) District Level

District Municipalities are *inter alia* responsible for detailed delimitation of bioregions, preparation of a district-wide land-use classification plan in accordance with a set of primary *Spatial Planning Categories* (refer to Chapter 17 below), and the formulation of strategies for sustainable development and land management in the district as a whole. In addition, they are to manage the relationship between local municipalities to ensure the integrated management of bioregions (in this regard, specific reference is made to areas where the municipal boundaries do not correspond with bioregional parameters, giving rise to overlapping and necessitating close co-operation between the relevant local municipalities).

c) Local Level

Local municipalities are to delimit neighbourhood areas as fine-grain planning units ensuring constructive community participation, undertake detailed land-use classification in accordance with the *Spatial Planning Categories* and *Sub-Categories* described in Chapter 17 below, formulate and implement detailed sustainable development and conservation strategies and projects, establish sustainable public-private partnerships by making use of Special Management areas.

SECTION D: VISION, GOALS AND OBJECTIVES

SECTION SYNOPSIS

In this section, the vision, goals and objectives for the Overberg District Municipality are described and a summary is provided of how the concept of sustainable development is to be realised in the ODM.

The studies that have been undertaken during the preparation of this document, together with the IDPs of the Overberg District Municipality and the various Category B municipalities confirmed the following:

- a) The ODM comprises unique natural attributes that justify its status as a national asset.
- b) The natural environment and its resources of the ODM are sensitive and susceptible to over-exploitation or inappropriate use.
- c) The ODM supports viable economic sectors.
- d) The ODM comprises a significant cultural heritage.
- e) The ODM includes natural ecosystems and habitats that are of global importance.
- f) There is a substantial need for social upliftment and community development.
- g) Priority should be given to issues such as rural development, land reform, environmental conservation, statistics, regional dumping sites, economic development, tourism, roads and infrastructure, golf estates and the use of agricultural land for non-agricultural purposes. These aspects should be addressed on the district level.
- h) There is a general lack of co-ordination of development and land use on a bioregional level, which emphasises the need for an integrated planning framework, within which government, community, corporate, and other private interests, would share responsibility for co-ordinating land-use planning for both public and private land; and for defining and implementing development options that would ensure that human needs are met in a sustainable way.

In order to address the above aspects, the following vision, goals and objectives have been formulated for the ODM:

15 VISION, GOALS AND OBJECTIVES

15.1 GUIDING VISION STATEMENTS

In order to balance the socio-economic aspirations of the ODM with sustainable utilisation of the natural environment and its community-supporting resources, the overriding mission of the IUCN¹⁷ was adopted as a fundamental guideline in the preparation of this document, namely:

'The maintenance of essential ecological processes, the preservation of genetic diversity and the insurance of the sustainable utilisation of species and ecosystems that can only be achieved by the conservation of essential habitats and not individual species; and, the management of human use of the biosphere so that it may yield the

¹⁷ International Union for Conservation of Nature.

greatest sustainable benefit to present generations, while maintaining its potential to meet the needs and aspirations of future generations' (IUCN, 1980).

Additional fundamental guidance was provided by the discussion document, 'Towards a New Environmental Policy for South Africa' which states that: *'In the process of transforming the South African society, the South African Government of national unity states as one of its priorities, that the government must ensure that all South African citizens, present and future, have the right to a decent quality of life through the sustainable use of resources. It also states that environmental considerations must be built into every decision and that current legislation should be revised with a view to establishing an effective system of environmental management in South Africa. The underlying principle of sustainable development is not only recognised as a priority by the South African Government, but also internationally in Agenda 21 (Department of Environmental Affairs and Tourism, 1996).*

15.2 VISION FOR THE ODM

The vision of the people of the ODM is as follows:

<p>VISION</p> <p>'Paradise at the southernmost tip of Africa – A <i>lekker</i> region that works'.</p> <p>MISSION</p> <p>'To create, preserve and further develop paradise through:</p> <ul style="list-style-type: none"> a) Sustainable and balanced utilisation and development of human and natural resources to the benefit and wealth of all the inhabitants and for the promotion of economic growth and development b) Promotion and sustainable utilisation of the region's diversity in different fields c) The preservation of the region's rural character d) Effective crime prevention and combating <p>To make the region a <i>lekker</i> place that works, by:</p> <ul style="list-style-type: none"> a) Striving to develop the potential of all inhabitants to the full b) Promoting unison within regional and communal context c) Ensuring that the region's inhabitants and their descendants can continue to live in a healthy natural environment'
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(From: Overberg IDP, 2002)

15.3 SUSTAINABLE DEVELOPMENT – THE OVERARCHING GOAL OF THE SDF

As stated in the project brief, the primary aim of the SDF is to **'promote real sustainable development in the ODM'** (refer to Chapter 1).

Sustainable development is defined as *'development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs'* (WCED, 1987: P 8).

The IISD¹⁸ (1995) highlights two key components with regard to sustainable development, namely (a) the **concept of need** (in particular, the essential needs of the poor to which overriding priority should be given, and the reality of limitations, imposed by the state of technology and social organisation) and (b) the **environment's ability** to meet present and future needs.

In the *World Conservation Strategy*, sustainable development is considered to be a set of tools and strategies, which respond to five broad requirements, namely:

- a) Integration of conservation with development.
- b) Satisfaction of basic human needs.
- c) Achievement of equity and justice.
- d) Provision of social self-determination and cultural diversity.
- e) Maintenance of ecological integrity.

It is clear that sustainable development will not be achieved by only conserving natural areas. The *Global Biodiversity Strategy* (IUCN/UNEP/WWF) states that conservation strategies must be aimed at accommodating cultural, economic, and political circumstances at local and regional levels. Such strategies must, *inter alia*, be aimed at improving the well-being of local and regional communities through the implementation of conservation strategies.

The International Institute for Sustainable Development (1995) states that sustainable development occurs at the intersection of three global imperatives and that if these imperatives are not balanced and integrated sustainable development cannot be achieved.

In this regard, the interactive model of sustainability described by Mebratu (1998), illustrates that sustainable development occurs where the three imperatives interact within an 'interactive zone'. Development outside this 'interactive zone' will not be sustainable¹⁹. Diagram 6 below illustrates the three global imperatives and their integration.

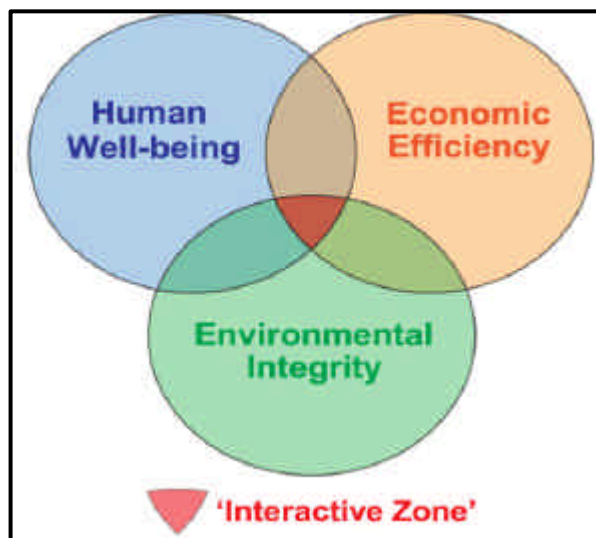


Diagram 6: The interactive model of sustainability (Adapted from Mebratu, 1998).

¹⁸ International Institute for Sustainable Development.

¹⁹ Mebratu, D. (1998). *Sustainability and sustainable development: Historical and conceptual overview*. Environmental Impact Assessment and Review, 18: 493-520.

This SDF builds on the following understanding of the three global imperatives:

15.3.1 HUMAN WELL-BEING

Human well-being refers to both **material** and **spiritual well-being**. Material well-being refers to the absence of poverty. Spiritual well-being, in terms of the bioregional planning methodology, implies that the bioregion represents a physical and moral space where its inhabitants seek to maintain and improve the continuity of its complex ecology. This, especially, entails creating the conditions for developing the individual to become richly connected to place and to obtain new powers, emotionally, intellectually and physically, so as to enable the individual, as a member of society, to play his or her rightful role in promoting and achieving sustainable development. It is recognised that, in post-apartheid South Africa, special consideration has to be given to address historical inequalities that have undermined human well-being in the past.

15.3.2 ENVIRONMENTAL INTEGRITY

Environmental integrity refers to the '*wholeness*' of the environment. 'Environment' is defined as the aggregate of all external conditions and influences affecting the life of an organism. In particular, 'environment' refers to the surroundings within which humans exist and that are made up of:

- a) the land, water and atmosphere of the earth;
- b) micro-organisms, plant and animal life;
- c) any part or combination of (a) and (b) and the interrelationships among and between them; and
- d) the physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Environmental integrity is determined by the *value* of the environment or place (natural or human-made), with specific reference to its intrinsic, systemic, and/or instrumental value.

It is recognised that human-made environments such as settlements, are located within and 'contained' by the natural environment. The manner in which human settlements are developed, therefore, has an immense impact on the quality and integrity of the environment as a totality. It is therefore imperative that the human-made environment be planned, designed and developed in a manner that will ensure the maintenance of the values referred to above (i.e. intrinsic, systemic, and/or instrumental value).

From a natural environmental perspective, it is clear that ecological integrity is a key factor in the sustainable development equation. Ecological integrity *inter alia* requires that source and sink thresholds are not exceeded, that biodiversity is protected and that essential ecological processes and services (e.g. water yield and quality, soil conservation, decomposition, etc.) are maintained.

International experience has shown that **biodiversity conservation** is a prerequisite for sustainable development, and that for biodiversity conservation to succeed, the maintenance of environmental integrity (as defined by ecological, economic and social criteria) must be one of the primary determinants of bioregional delimitation and land-use planning.

15.3.3 ECONOMIC EFFICIENCY

Economic efficiency is understood as the optimisation of benefit at the lowest cost for valued things. Efficiency is the **balancing criterion** between human well-being and environmental integrity as it relates to a level of achievement in a particular performance in the one, to a loss in performance with the other. In terms of the definition and understanding of sustainable development and bioregional planning, efficiency is considered to take place within an economic system.

Economic efficiency also refers to making the best use of available resources, including human resources, funds, land, infrastructure, etc. It is also understood as the optimisation of benefit at the lowest cost for valued things.

In view of the fact that efficiency balances the gains among different values, conflict often arises where the level of attainment of efficiency is in question. The construction of a road through a settlement may, for example, increase the efficiency of a transport network by saving cost and time for the road-user. However, such road may reduce environmental quality, endanger the lives of local inhabitants, and result in emotional stress for individuals living in the proximity of the road, as well as the users of the road.

Efficiency, which balances the gains among different values, can therefore not be considered separately from justice, which balances the gains among persons. Whilst equity is most often considered as an ideal principle of just distribution of goods/benefits among persons, there are many stumbling blocks in society that make pure equity impossible to achieve.

It is important to note that the unconditional optimisation of benefit, regardless of its social and environmental cost, has the potential to create serious conflict between various interest groups. For example, the construction of a road through a settlement may imply high efficiency in that it would limit construction costs and save time for the road-user. On the other hand, such a road may prove to be largely inequitable due to its environmental and social impact (e.g. endangering the lives of local inhabitants, and resulting in emotional stress for individuals living in the proximity of the road, as well as users of the road).

Efficiency should therefore never be considered separately from justice (both environmental justice and social justice). Whilst justice is most often considered as an ideal principle of equitable distribution of goods or benefits among persons, it is important to note that there are many stumbling blocks in society that make pure justice difficult to achieve.

15.4 SUSTAINABLE DEVELOPMENT OBJECTIVES

The application and implementation of the concept of sustainable development in the planning area need to be organised in accordance with set principles that will operationalise the vision and goals of the planning area. These principles include the following:

15.4.1 SOCIAL SUSTAINABILITY

This objective refers to the concept of need referred to above and addresses the following:

- (i) Improve the quality of human life, including poverty elimination.
- (ii) Recognise the extent of cultural diversity and respond accordingly.
- (iii) Protect and promote human health through a healthy environment.
- (iv) Implement skills training and capacity enhancement for historically disadvantaged people.

15.4.2 ECONOMIC SUSTAINABILITY

Economic efficiency (and feasibility) is generally recognised as one of the three imperatives to achieve sustainable development. Effort must be made to achieve the following:

- a) Ensure that as a whole, the for- and non-profit projects combine into a financially viable local economy that benefits all stakeholders, including shareholders, employees, the community, and partners.
- b) Promote employment creation and, where practically possible, labour intensive construction.
- c) Enhance competitiveness within the context of the promotion of policies and practices that advance environmental sustainability.
- d) Invest some of the proceeds from the use of non-renewable resources in social and human-made capital, to maintain the capacity to meet the needs of future generations.

15.4.3 BIOPHYSICAL SUSTAINABILITY

In the ODM there will be the presumption in favour of conservation and a premium will be placed on the conservation of natural resources, wildlife and landscape. Materials for new development should, for example, be obtained from sustainable sources and in the design of buildings, the use of energy consumption will be minimised. In addition, the following principles will be incorporated into the planning and management of the development:

- a) Minimise use of the four generic resources, namely energy, water, land and materials.
- b) Maximise resource re-use and/or recycling.
- c) Use renewable resources in preference to non-renewable resources.
- d) Minimise air, land and water pollution.
- e) Create a healthy, non-toxic environment.
- f) Maintain and restore the Earth's vitality and ecological diversity.
- g) Minimise damage to sensitive landscapes, including scenic, cultural, historical, and architectural aspects.

15.4.4 TECHNICAL SUSTAINABILITY

A primary aim of this SDF is to create a **qualitative** cultural environment, which is 'in harmony' with the natural environment that 'contains' it. The following objectives are set in this regard:

- a) Construct durable, reliable and functional structures.
- b) Pursue quality in creating the built environment.
- c) Use serviceability to promote sustainable construction.

15.5 SUSTAINABLE DEVELOPMENT THEMES

This document aims to build and maintain **viable** communities within the broad framework of sustainability, which implies *'meeting the needs of the present, without compromising the ability of future generations to meet their needs'*. With regard to strategic proposals relating to sustainable development implementation, this document proposes the following themes and actions required at the level of the household, neighbourhood/community and the town/district.

Table 26: Themes as focus for discussion and actions required.

THEME 1: RESOURCE USE			
DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Ensuring people's needs are met while minimising the following:	Sustainable household; waste minimisation and resource conservation.	Community-level recycling; what to do and how to do it.	Waste minimisation and recycling within urban boundaries while also acquiring the resources that urban producers and consumers need.
Non-renewable resource use.	Meeting needs for energy, materials and water while minimising resource use (especially fossil fuels but also, for high consumption households, water use and materials) and separating recyclables.	This includes reclamation and re-use and the direct use of wastes (e.g. composting, use of waste water).	The regulations and incentives to promote sustainable resource use and minimise waste.
Unsustainable draw on renewable resources.	For wealthier households, de-linking high standards of living from high levels of resource use and waste generation.	Urban agriculture as an already large source of resources and with great untapped potential (see below under livelihoods).	Provisions for waste collection and management.
Unsustainable use of global and local sinks for wastes.			Promoting improved thermal performance in existing and new buildings.

THEME 2: LIVELIHOODS			
DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
How to link employment creation which contributes to a settlement's prosperity with poverty reduction and resource conservation.	<p>Tackling housing and employment needs through self-help and mutual aid.</p> <p>Support for household enterprises through community-based credit schemes.</p> <p>Considering how housing schemes could better meet the needs of those who work from home (mostly women) for space and facilities for income-generating activities.</p>	<p>Improving or creating livelihoods for poorer groups in reclamation and recycling while also promoting resource conservation.</p> <p>Urban agriculture; producing food and livelihoods within urban areas. In many areas, urban agriculture is central to the livelihoods of poorer households.</p>	<p>Understanding and acting on the employment opportunities from promoting sustainable development.</p> <p>Infrastructure and support for expanding the area's employment base and comparative advantage within a 'sustainable development' framework.</p> <p>Programs to support micro-enterprise development and training/retraining and research. Programs with local businesses and water, local authority to improve resource efficiency & energy conservation in all sectors.</p>
THEME 3: BASIC NEEDS AND URBAN POVERTY			
DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Provision of basic services to all.	<p>Addressing particular needs of vulnerable groups. Includes working with disadvantaged city children to understand and act on their needs.</p>	<p>Using participatory tools and methods to develop community programmes.</p> <p>Also identify poor and vulnerable groups and how best to reduce their vulnerability to the economic and environmental risks they face.</p> <p>Special programmes for vulnerable groups or support for such programmes at household level.</p>	<p>Community action and city strategies to reduce basic needs and reduce poverty including the framework and funding structure for actions at household and community level.</p> <p>Ensure equity in citizens' access to city resources and facilities.</p>
THEME 4: FINANCE FOR SUSTAINABLE DEVELOPMENT			
DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Meeting human needs in settlements and promoting resource conservation.	<p>Meeting household needs; forms, mortgages and cross-subsidies which maximise number of people able to afford adequate quality housing.</p>	<p>Mobilising community resources for low-income housing and neighbourhood development. Where capital is lacking and local government weak, this includes finance for community or neighbourhood</p>	<p>Financing sustainable development.</p>

		level services and infrastructure (water, sanitation, health care, etc.).	
		Support for innovative community actions to meet needs and reduce waste/resource consumption.	Seeking the appropriate framework for better meeting needs while promoting resource conservation and waste reduction. Developing a framework to ensure that all urban areas and districts contribute adequately to public authorities' revenue base and develop a politically acceptable system where resources are transferred from richer to poorer areas.

THEME 5: GOVERNANCE & PARTNERSHIPS

DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Achieving sustainable development goals is impossible without competent, effective and representative local government working in partnership with citizen groups, business and, in most societies, voluntary organisations.	Defining and protecting citizen rights within an urbanising world. Key debate at household and neighbourhood level about citizen and community rights; redefining who has control over resources and their use within residential areas. The nature of participation and what it covers.	Community and neighbourhood action programmes; ensuring participation and accountability. How to provide an urban and rural based framework to support and encourage the initiatives of households, communities, NGOs and enterprises while setting limits on resource use and waste generation and ensuring public health and safety.	Governance for sustainable development in urban and rural areas. Regulations and incentives for promoting achievement development goals. Framework set for participation and community rights. What enablement actually means in practice, within each particular area.

THEME 6: ENVIRONMENT & HEALTH

DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Meeting citizen's health needs and ensuring a healthy environment.	Minimising the negative health impact of urban environments on households. Ensuring provision of basic services to all, especially poor people in 'life and health-threatening environments'.	Water, sanitation and drainage provision within low-income communities. Providing health care and emergency services within limited municipal budgets.	Strategic framework for a 'healthy urban area' & for maintaining economic prosperity – and for ensuring implementation of occupational and environmental health. Integrating health and environmental goals in the collection and management of solid wastes.

THEME 7: TRANSPORT AND COMMUNICATION			
DESCRIPTION	PROPOSED ACTIONS		
	HOUSEHOLD	NEIGHBOURHOOD/ COMMUNITY	TOWN & DISTRICT
Maximising people's access.	Meeting transport needs for households and communities.	Promoting transport.	Meeting transport needs and environmental goals.
Minimising use of fossil fuel and other non-renewable resources.	Participatory systems to determine people's needs and priorities as the basis for determining how to ensure they can obtain the goods and services they want with minimum energy and other environmental costs.	Minimising (especially private car minimising) developments (e.g. bringing employment opportunities close to public transport nodes and residential areas). Encouraging non-motorised transport where possible.	Seeking the best balance between free-flow of traffic, citizen access and minimum use of private cars. Promoting fuel-efficient, movement-minimising in development of urban areas and the surrounding districts.

SECTION E: DETERMINING PLANNING UNITS AND LAND-USE

SECTION SYNOPSIS

In this section, proposals and recommendations are put forward in respect of the following:

- a) Detailed delimitation of the various bioregions of the ODM as the primary planning units.
- b) Future land-use in accordance with a set of Spatial Planning Categories described in the *Bioregional Planning Framework for the Western Cape*.

16 DELIMITATION OF BIOREGIONS

A primary step in the preparation of the SDF was the delimitation of the bioregions that collectively form the ODM.

The purpose of this delimitation process was to establish the boundaries of the bioregions in order to provide for a spatial development framework within which the following can be achieved:

- a) Achieve holistic integrated planning, i.e. ensure that all aspects that may have an influence on the ODM and its component Category B municipalities are addressed in this SDF and the IDP.
- b) Identify areas of co-operation between municipalities (i.e. overlapping areas where municipal boundaries do not correspond with bioregional parameters). In this regard, it is recognised that the existing municipal boundaries, in many cases, do not follow bioregional boundaries and that appropriate cross-boundary co-ordination needs to be established between adjoining municipalities in respect of areas and issues that are of mutual interest.
- c) Long-term sustainable development based on a place-specific planning approach and optimal community participation.
- d) Integrated management of community-supporting resources.
- e) Appropriate future municipal demarcation in accordance with bioregional planning principles.

16.1 DELIMITATION PROCESS

The delimitation of the bioregions of the ODM was based upon the delimitation process described in the *Manual for Bioregional Planning in the Western Cape* (PGWC, 2003). The conceptual bioregions put forward in the manual served as a basis for the delimitation process.

The delimitation approach recognises that any bioregion has enormous *intrinsic*, *instrumental* and *systemic* values that are directly related to the well-being of natural and human communities. The unique ecological, cultural, social and economic characteristics and components of a bioregion co-exist and function in an integrated, and often complex, manner. For a bioregion to be optimally effective in terms of its community-supporting functions, it is of paramount importance that this symbiosis of bioregional characteristics and functions be maintained and the bioregions must, as far as possible, not be fragmented by political boundaries. It should be maintained and governed as a distinct unit.

In addition, no bioregion, or any land unit should be seen as an island in isolation from its surroundings. Each unit is an important part of the broader region within which it is situated, and the mutual relationships and linkages between adjacent units must be understood and applied when delimiting and managing units.

The delimitation process adopted in this planning process encapsulates biophysical, biological and socio-economic considerations consistent with the definition of a bioregion (refer to Chapter 13 above) and recognises both diversity and scale. The methodology provides for the identification of 4 distinct **bioregional components** in a hierarchical relationship with each other, requiring a planning / management approach ranging from the broad scale to the detail (refer to Diagram 7 below).

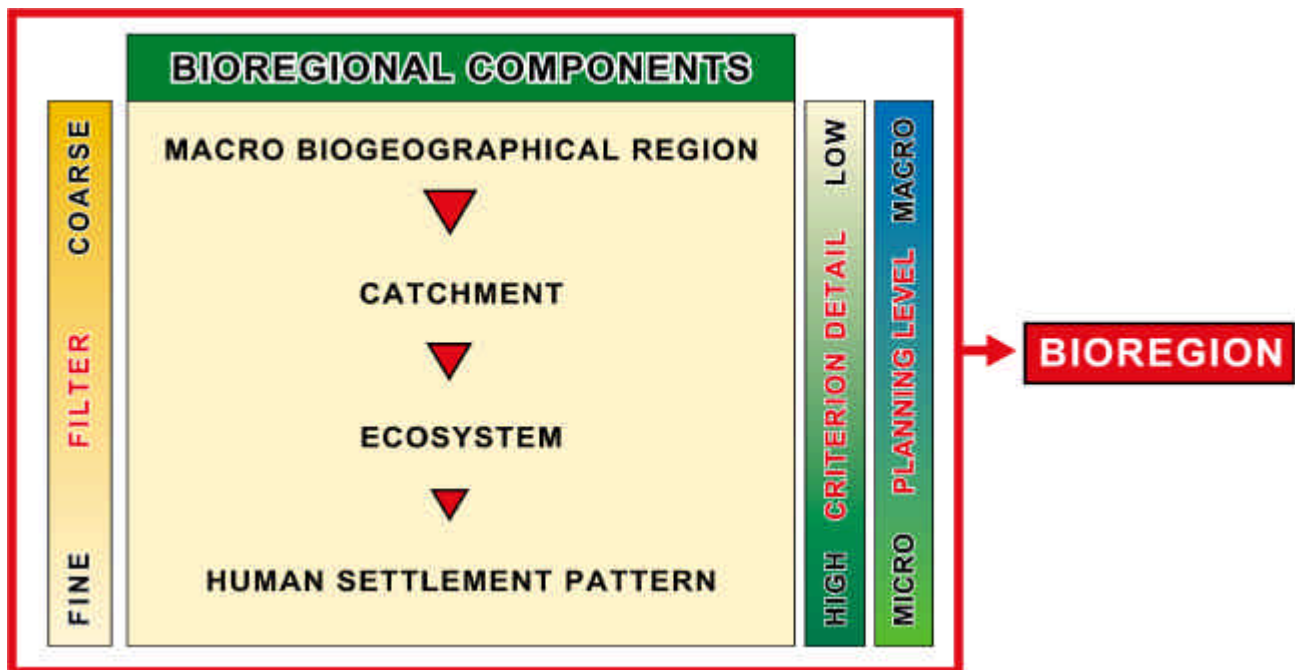


Diagram 7: Bioregional components.

The process of delimiting bioregions follows logical steps, or sequences, the first of which is defining and delimiting the 'broad-brush' 'macro biogeographical region' within which the bioregion is situated, using 'coarse-grain' criteria. The second step is to identify the various catchments and 'quaternary (sub) catchments', followed by ecosystems. The level of detail required for delimiting the bioregional components, and the associated management and planning thereof, increases as the scale decreases. The most detailed component, which is used for refining the delimitation of individual bioregions, is the human settlement pattern (refer to Diagram 7 above).

16.1.1 MACRO BIOGEOGRAPHICAL REGION

'Macro biogeographical regions' are defined by their unique biological characteristics (flora and fauna) and biophysical characteristics (climate, geology, soils, topography and catchments). These characteristics give rise to a variety of major landscapes, and variations in human settlement patterns and economic activity.

The unique characteristics of these 'macro biogeographical regions' and their associated landscapes are largely the result of the natural fragmentation of the land surface of the region by discernible natural dividing features, the primary example of which is the Cape

Fold Mountain Chain. These mountains create a complex topographical model, which has a significant impact on settlement patterns in the ODM.

The ODM generally falls within two 'macro biogeographical regions', namely '**Coastal Plains**' and '**Mountain Valleys**' (refer to Figure 12 below). According to the *Bioregional Planning Framework for the Western Cape*, the Mountain Valley 'macro biogeographical region' 'includes the mountains and mountain valleys, which run roughly parallel to the coastline and which are generally associated with the Cape Fold Mountains', while the Coastal Plains 'comprise the coastal plains, which are situated on the seaward side of the Cape Fold Belt mountains and form the interface between the coastline and interior uplands and mountains'.

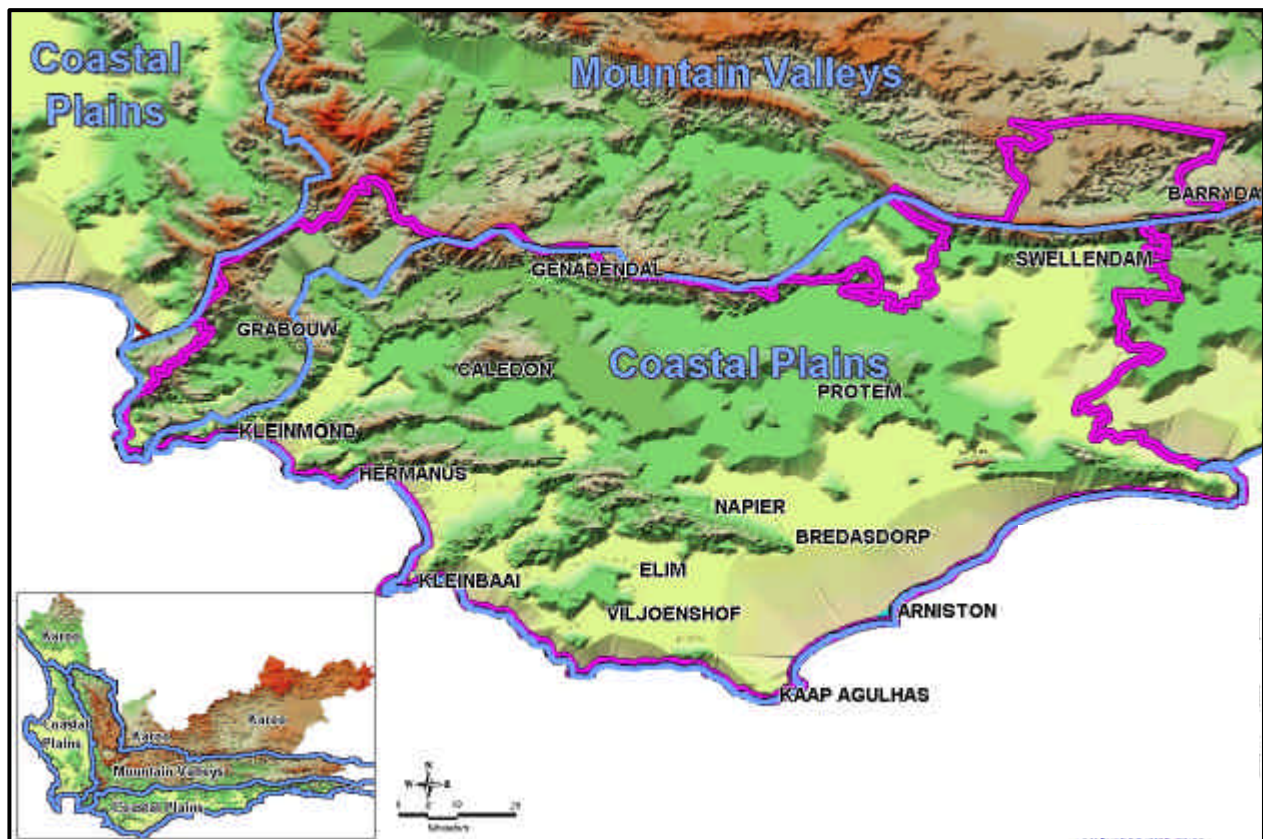


Figure 12: Macro-biogeographical regions of the Western Cape.

16.1.2 CATCHMENTS

As illustrated by Figure 13 below, the ODM comprises a number of integrated catchment areas, the primary of which the Breede River and its main tributary the Rivierosonderend River is the most significant and include a large number of quarternary catchments. Most of these quarternary catchments are associated with the high-rainfall mountainous areas of the Rivierosonderend and Langeberg. There are, furthermore, no less than ten smaller catchments in the ODM, most of which are in the Cape Agulhas Plain.

Catchments and 'quarternary' (sub) catchments are primary determinants of bioregional boundaries. As is the case in many regions, water and its associated catchments, are the primary common denominators that determine the social, economical, and biophysical boundaries of a bioregion.

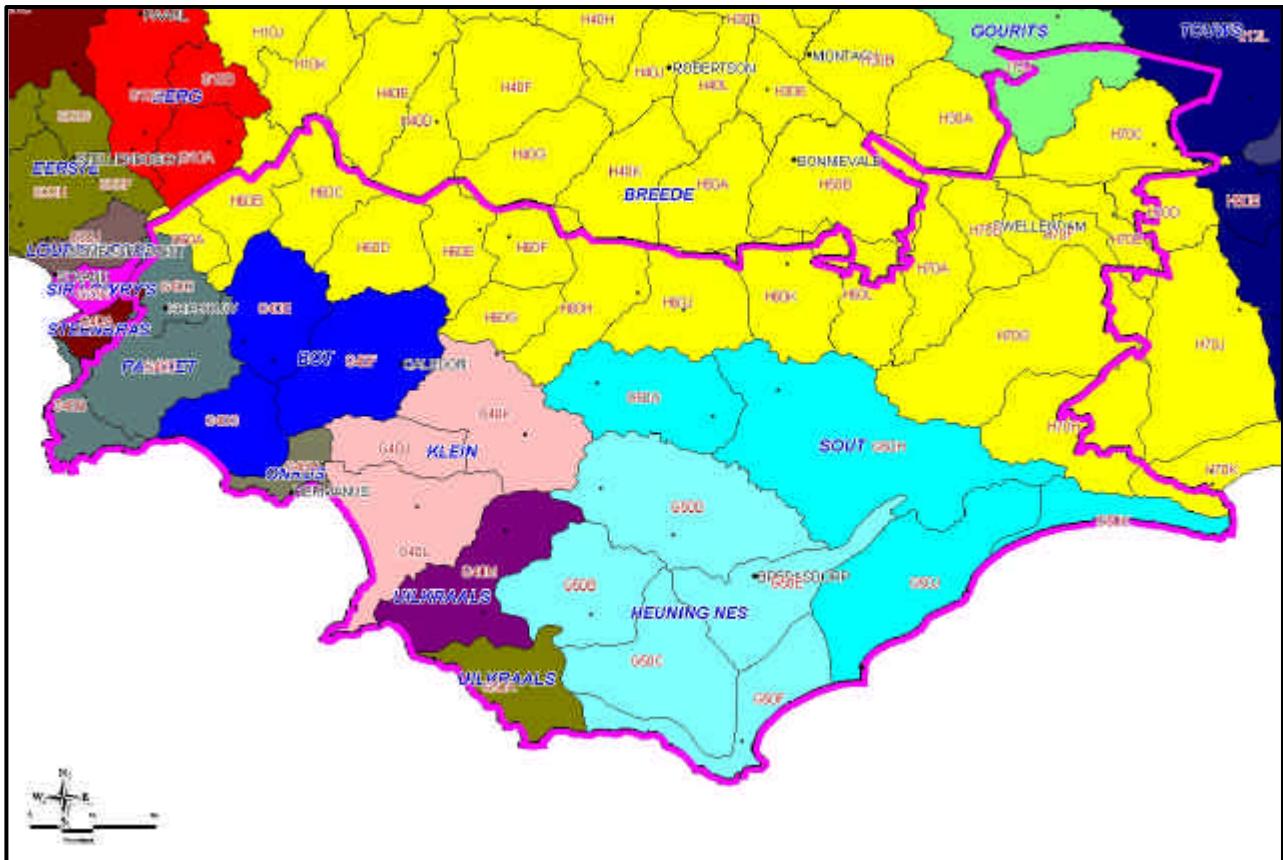


Figure 13: Major catchments of the Western Cape (Source: Water Research Commission).

Catchments should, as far as possible, not be fragmented by administrative or political boundaries. If fragmentation is unavoidable due to the scale or form of the catchment, appropriate bioregional management should be applied by the responsible authorities to ensure co-ordinated management of the entire catchment. It is imperative that such co-ordinated management and close co-operation between bioregions be established and facilitated by the ODM.

In this regard, it is important to note that from the perspective of promoting sustainable development and biodiversity conservation through integrated development and conservation, it is especially important to consider regional planning and management in the context of the integrative relationship between ecological processes (e.g. catchment functions) and the needs and aspirations of local communities.

16.1.3 ECOSYSTEMS

The next key component of the bioregion is the *ecosystem*. A common use of the term *ecosystem* refers to a distinct and coherent assemblage of organisms and the physical environment with which they interact. An ecosystem is supposed to represent a bounded, self-maintaining system of varied, living and non-living, interacting parts.

The ecological functions of the natural systems are directly related to biodiversity. Biodiversity is the primary element in the maintenance of the resilience of ecological systems to external shocks and, thus, the ability of these systems to sustain the dependent communities. It is recognised that, for biodiversity conservation to succeed, environmental characteristics (as defined by ecological, economic and social criteria) must be one of the primary determinants of boundary delimitation.

It is imperative that ecosystems, broad habitat units and individual habitats, especially those that are highly irreplaceable, must not be fragmented due to inappropriate administrative boundaries. Ecological units that relate to each other need to be consolidated as far as possible and incorporated into a singular bioregion, which is managed by a specific authority.

In addition to their ecological functions, ecosystems also have a broad *instrumental* value in that they support a diversity of land-uses. They provide for broad divergent land-use classes, which substantially influence settlement patterns, social structures and the local economy. For example, the ecosystems of the Rûens generally support extensive wheat farming, with low human settlement densities. Ecosystems elsewhere in the municipality, in turn, support intensive land-uses, such as consumptive agriculture and industrial development, which give rise to high settlement densities and completely different social structures. As with the ecological characteristics of a bioregion, it is imperative that the unique characteristics of each ecosystem and broad habitat unit be recognised and applied in any bioregional delimitation.

A primary requirement for effective bioregional delimitation is to undertake intensive research to identify ecosystems, broad habitat units, and key individual habitats, especially those that are highly irreplaceable. There is generally an enormous need for biological inventory data of appropriate quality and form. In this regard, initiatives such as the *Cape Action for People and the Environment* (CAPE) (refer to Figure 14 below) and the *Succulent Karoo Ecosystem Plan* (SKEP) have a particularly important function in providing the required scientific information.

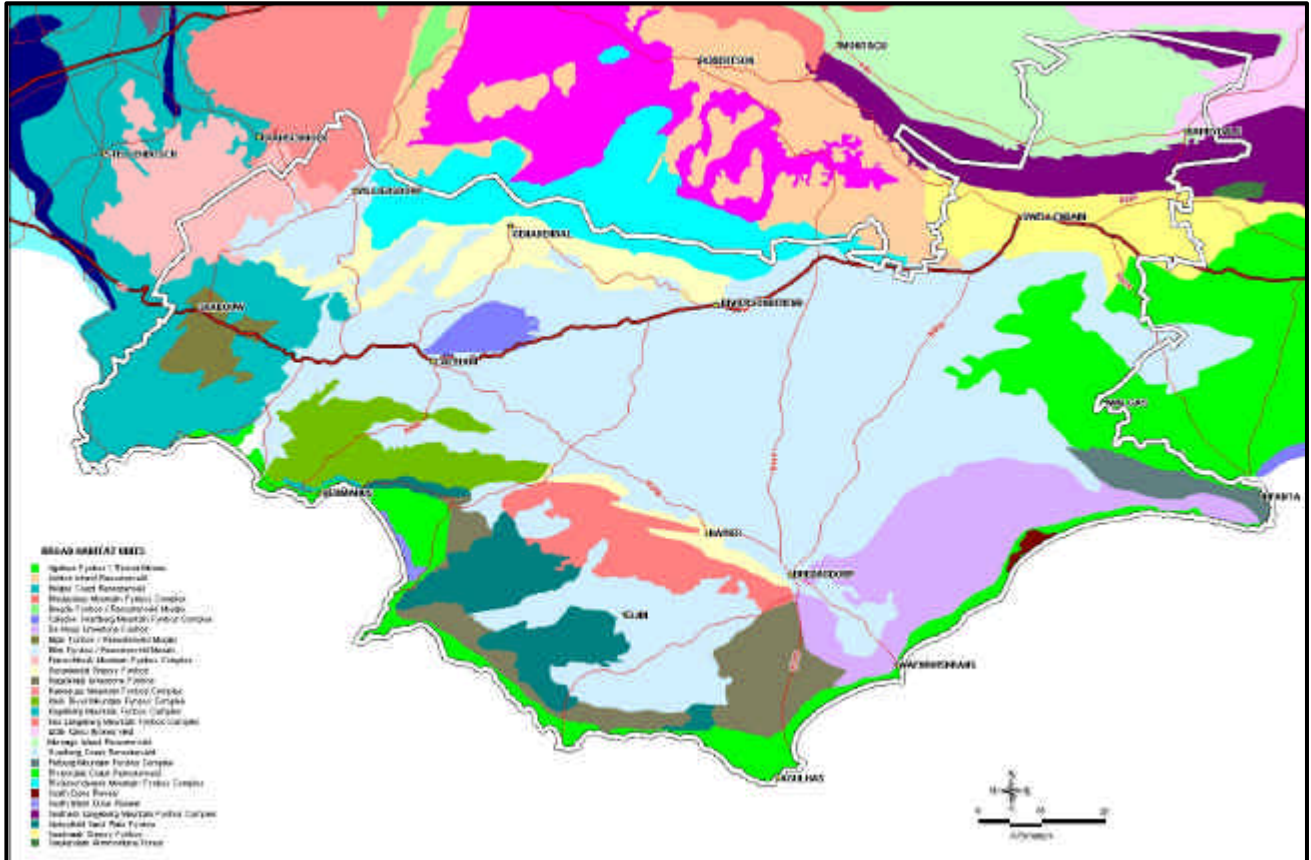


Figure 14: Broad Habitat Units of the Overberg District Municipality (A larger scale map is appended to this document).

16.1.4 HUMAN SETTLEMENT PATTERN

As illustrated by Figure 8 on Page 31 the human settlement patterns of the ODM reflect a combination of both sparsely inhabited areas (refer especially to the DMA), and densely inhabited areas mostly along the coastal regions. Most of the district's population is situated in the towns or villages described in Chapter 9.1.

The social boundaries of the settlements is an important element of the delimitation process in that they assist to determine the boundaries of the places the various communities refer to as their 'home'. In this regard, it is important to note that one of the greatest singular problems, which has been experienced world-wide in the delimitation of bioregions, is the historic mismatches between administrative, bio-physical and topographical boundaries, which form the essence of the places people call 'home'.

In order to provide smaller planning units and to facilitate detailed delimitation of the human settlement component, it is necessary to define the domains and neighbourhood areas that correspond with the ecological boundaries of the bioregion.

16.1.4.1 DOMAIN

The human settlement patterns are generally determined by socio-economic factors and result in distinct **domains**, each with a specific character, and unique economic and social structures. These domains generally comprise an urban settlement (consisting of one or more **neighbourhood areas**), together with its industrial areas, and associated rural landscapes.

16.1.4.2 NEIGHBOURHOOD AREAS

Whilst the bioregion, offers an effective and appropriate scale for regional planning, it needs to be recognised that 'place-specific' planning requires that there should be smaller, 'finer-grain' spatial planning units, which can serve as 'building blocks' for all forms of land-use and development.

Therefore, to provide such smaller planning units and to refine the delimitation of the 'human settlement' component, the neighbourhood areas of the bioregions should be defined. These neighbourhood areas should be defined through intensive public consultation and the compilation of sectoral maps including *inter alia* maps of church wards, community wards, municipal wards, agricultural union and farmers' society wards, and rural security areas.

Neighbourhood areas generally correspond with areas that have a common character and identity, determined by physical characteristics such as topography, space, form, detail, symbol use, etc. In addition, neighbourhood areas generally correspond with relatively homogeneous community groupings.

In the delimitation process, it is important to explore the available sources of authentic traditional knowledge, which refers to a body of knowledge built up by a group of people through generations of living in close contact with their environment. Traditional knowledge is both cumulative and dynamic, building upon the experience of earlier generations, and adapting to the new technological and socio-economic changes of the present.

In addition to providing for 'finer-grain' planning units, the neighbourhood areas and their appropriate management will ensure that planning frameworks and processes are designed and managed in a manner, which would promote enthusiastic and effective public participation. The neighbourhood areas will ensure that the physical scale of the ODM is such that the residents of that area would identify with it to the extent that they would be encouraged to actively take part in its planning and management.

It is imperative that the SDFs of the Category B municipalities and the DMA should identify neighbourhood areas as smaller planning units and provide guidelines in respect of their future management. (**Annexure 3** provides a comprehensive description of neighbourhood area planning and management as advocated in the *Bioregional Planning Framework for the Western Cape*).

16.1.4.3 LAND-SUBDIVISION

Land-subdivision and cadastral boundaries represent the fine-grain component of the bioregion. Individual land-units collectively form the character and shape of the landscape (cultural or natural) within which they are situated. It is, therefore, of paramount importance for each land-unit to be appropriately managed so as to ensure its sustainability and, most importantly, to ensure that it contributes constructively to the landscape of which it forms a part.

The delimitation of individual property units requires a very high level of detail and legislative input. The statutory boundaries of individual land-subdivisions, therefore, represent the detailed boundaries of the bioregion. This fine-grain delimitation should be undertaken in collaboration with the relevant landowners.

16.2 PLAN OF THE BIOREGIONS OF THE ODM

Through the above delimitation process a plan was prepared in respect of the bioregions of the ODM (refer to **Plan 1**). This plan illustrates the boundaries of the various bioregions as determined in terms of the delimitation criteria described above. The plan also illustrates *areas of co-operation* between the various Category B municipalities within the ODM, as well as between the ODM and its neighbouring District Municipalities.

It is important to reiterate the purpose of the *areas of co-operation*, namely to:

- a) Achieve holistic integrated planning, i.e. ensure that all aspects that may have an influence on the ODM and its component Category B municipalities are addressed in this SDF and the IDP.
- b) Identify areas of co-operation between municipalities (i.e. overlapping areas where municipal boundaries do not correspond with bioregional parameters). In this regard, it is recognised that the existing municipal boundaries, in many cases, do not follow bioregional boundaries and that appropriate cross-boundary co-ordination needs to be established between adjoining municipalities in respect of areas and issues that are of mutual interest.
- c) Long-term sustainable development based on a place-specific planning approach and optimal community participation.
- d) Integrated management of community-supporting resources.
- e) Appropriate future municipal demarcation in accordance with bioregional planning principles.

It is of fundamental importance for the Overberg District Municipality to facilitate the implementation of Plan 1 as a strategy to achieve effective bioregional management throughout its area of jurisdiction and, in particular, to achieve the objectives listed in Par. (a) – (e) above.

It is important to note that the plan may change due to *inter alia* the delimitation of the neighbourhood areas of the Category B municipalities, and the incorporation of new scientific data from CAPE, STEP, and SKEP.

16.2.1 AREAS OF CO-OPERATION

The Plan 1 indicates that there are a number of instances where the boundaries of the bioregions do not correspond with the political or municipal boundaries.

This implies that, in terms of the bioregional planning approach, there are areas along the outer parameters of the bioregion in respect of which a co-operative management approach between the relevant municipalities would be required (refer to **Plan 1.1** and **Plan 1.2**).

In the case of *areas of co-operation* between Category B municipalities falling within the ODM, it will be the responsibility of the Overberg District Municipality to facilitate such co-operation. In the case of *areas of co-operation* that span the boundaries between the ODM and its neighbouring district municipalities, it will be the function of PGWC to facilitate co-operation. The ideal is that all provincial and municipal boundaries should be aligned with bioregional boundaries during the next municipal demarcation process.

17 LAND-USE CLASSIFICATION

17.1 SPATIAL PLANNING CATEGORIES

The *Spatial Planning Categories* (SPCs) advocated in the Bioregional Planning Framework for the Western Cape were applied to illustrate the proposed future land-use of the ODM. The SPCs are consistent with UNESCO's Biosphere Reserve Model described in Chapter 19 below and include all land zonings that are provided for under the existing Zoning Scheme Regulations. The SPCs were used to illustrate the proposed land-use classification plan of the ODM (refer to **Plan 2**). The tables and diagram below define and illustrate the various SPCs.

A key function of Plan 2 is that it provides a standard framework for land-use classification in the various Category B municipalities. It is proposed that Plan 2 be used as a basis for the preparation of the SDFs of these municipalities.

Table 27: The six primary Spatial Planning Categories.

CATEGORY	DESCRIPTION	CLASSIFICATION CRITERIA & PURPOSES
Category A	Core Area (Consistent with UNESCO's Biosphere Reserve 'Core Area').	<ul style="list-style-type: none"> a) Areas of high conservation importance (highly irreplaceable) that must be protected from change. b) Only <i>non-consumptive land-uses</i>¹⁹ may be allowed under strict conditions. c) No development allowed.
Category B	Buffer Area (Consistent with UNESCO's Biosphere Reserve 'Buffer Area').	<ul style="list-style-type: none"> a) Serving as a buffer between Category A Areas and Category C Areas. b) Providing an appropriate interim classification for conservation-worthy areas that do not have statutory protection, including ecological corridors, and former forestry and agricultural areas that are worthy of rehabilitation. c) Sustainable small-scale development and non-consumptive land-uses may be allowed conditionally.
Category C	Agricultural areas (Consistent with UNESCO's Biosphere Reserve 'Transition Area').	<ul style="list-style-type: none"> a) Rural areas where extensive and intensive agriculture is practiced. b) Forestry areas.
Category D	Urban-related areas (Consistent with UNESCO's Biosphere Reserve 'Transition Area').	Accommodating a broad spectrum of nodal urban-related settlements and associated services and infrastructure.
Category E	Industrial areas.	Representing the industrial areas where very high intensity of human activity and consumptive land-use occur.
Category F	Surface infrastructure and buildings.	All surface infrastructure and buildings not catered for in the above categories, including roads, railway lines, power lines, communication structures, etc.

¹⁹ Refers to land-use that does not imply harvesting or extraction of products for consumption, e.g. recreation, tourism, religious ceremonies, research, education, etc.

17.2 SUB-CATEGORIES

As stated above, 32 Sub-categories have been provided to facilitate detailed planning. As illustrated by Diagram 8 below, the various SPCs and Sub-categories were numbered in alphabetical order, the purpose being to provide for a system in terms of which each entity in the municipal area can be allocated a coded number that would facilitate effective land-use management by the municipality.

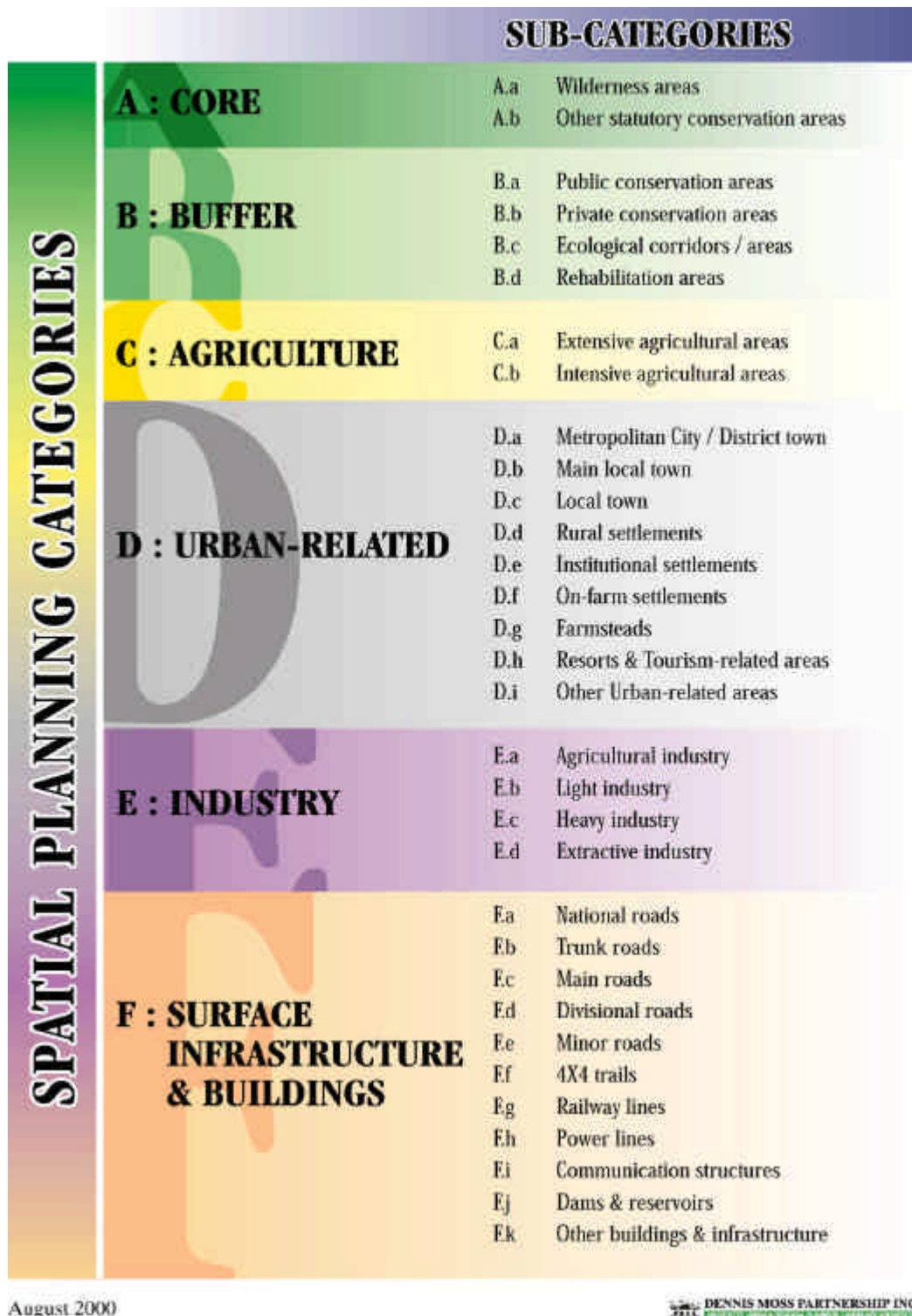


Diagram 8: Spatial Planning Categories and Sub-Categories (Source: Draft Manual for Bioregional Planning in the Western Cape {PGWC, 2003}).

17.2.1 SPATIAL PLANNING CATEGORY DESCRIPTION

Table 28: Summarised description of the Sub-Categories.

SUB-CATEGORY	DESCRIPTION
CATEGORY A: CORE AREAS	
A.a Wilderness areas	Statutory and <i>de facto</i> wilderness areas serving as a 'benchmark' for environmental health and providing primitive, non-consumptive, non-mechanised outdoor recreation.
A.b Other statutory conservation areas	Statutory conservation areas, e.g. national parks, provincial and private nature reserves (zoned Open Space III), etc., providing for biodiversity conservation, outdoor recreation and limited sustainable resource use.
CATEGORY B: BUFFER AREAS	
B.a Public conservation areas	Public conservation areas with statutory conservation status – not qualifying for A.a status, surrounding, or within Core Areas, e.g. contractual national parks, national monuments, local authority nature reserves.
B.b Private conservation areas	<i>De facto</i> conservation areas in private ownership, no statutory conservation status, but ideally within registered conservancies – protecting integrity of core areas.
B.c Ecological corridors /areas	Natural linkages between ecosystems that contribute to the maintenance of natural processes (e.g. rivers) also continuous tracts of natural vegetation, and habitats / broad habitat units that are considered highly irreplaceable ²⁰ but do not have official conservation status.
B.d Rehabilitation areas	Areas designated for rehabilitation (i.e. conservation-worthy areas previously degraded by agriculture, mining, forestry).
CATEGORY C: TRANSITION AREAS	
C.a Extensive agricultural areas	Agricultural areas covered with natural vegetation, providing for sustainable low-impact agriculture-related land-uses, e.g. indigenous plant harvesting, extensive stock-farming, game-farming, eco-tourism, etc.
C.b Intensive agricultural areas	Agricultural areas used for multiple agriculture-related resource uses, including cultivated areas, forestry areas, etc.
CATEGORY D: URBAN-RELATED AREAS	
D.a Metropolitan/District Town	Category A Municipality and the location of a Category C Municipality authority.
D.b Main Local town	Location of a Category B Municipality authority.
D.c Local town	Town that previously had municipal status, now forms part of a Category B Municipality and has a municipal office.
D.d Rural settlements	Rural settlements that fall under the jurisdiction of a Category B Municipality (settlements that had no municipal status in the past).
D.e Institutional settlements	Nodal settlements and infrastructure associated with institutions, such as educational centers, prisons, etc.
D.f On-farm settlements	On-farm settlements nodes comprising more than 5 units, together with the communal infrastructure, e.g. school, church, etc.
D.g Farmsteads	Main farmsteads including on-farm infrastructure required for farm logistics, e.g. sheds, packing facilities, etc.
D.h Resorts & Tourism-related areas	Resorts and tourism-related developments and areas, including hotels, motels etc.
D.i Other urban-related areas	Urban-related areas not included in Sub-Category D.a – D.h. (e.g. settlements within District Management Areas under the jurisdiction of a Category C Municipality).

²⁰ Irreplaceability refers to the potential contribution of a site to a preservation or representation goal. It is a fundamental way of measuring the conservation value of any site. An irreplaceable site will appear in every analysis of alternative combinations of sites. In other words, it is one which must be included in a conservation area because significant options for preservation are lost if the site is excluded.

CATEGORY E: INDUSTRIAL AREAS		
E.a	Agricultural industry	Agriculture-related industrial developments, such as silos, wine cellars, packing facilities, dairies, saw-mills, etc.
E.b	Light industry	Areas designated for light industrial activities, such as small factories, brick-yards, saw-mills, metal-works, etc.
E.c	Heavy industry	Areas designated for heavy industrial activities, such as steel mills, etc.
E.d	Extractive industry	Settlements and infrastructure associated with multiple consumptive resource extraction, e.g. mining.
CATEGORY F: SURFACE INFRASTRUCTURE & BUILDINGS		
F.a	National roads	National roads proclaimed in terms of the National Roads Act, 1998 (Act 7 of 1998).
F.b	Trunk roads	Provincial and regional roads proclaimed in terms of the Roads Ordinance, 1976 (No. 19 of 1976).
F.c	Main roads	Provincial and regional roads proclaimed in terms of the Roads Ordinance, 1976 (No. 19 of 1976).
F.d	Divisional roads	Provincial and regional roads proclaimed in terms of the Roads Ordinance, 1976 (No. 19 of 1976).
F.e	Minor roads	Provincial and regional roads proclaimed in terms of the Roads Ordinance, 1976 (No. 19 of 1976).
F.f	4X4 trails	4X4 trails within Category B and C.
F.g	Railway lines	Railway lines and associated infrastructure.
F.h	Power lines	Power lines and associated sub-stations and infrastructure.
F.i	Communication structures	Cellular network towers, radio towers, telecommunication infrastructure, etc.
F.j	Dams & reservoirs	Major dams and reservoirs.
F.k	Other buildings & infrastructure	Buildings & infrastructure not included in Sub-Category F.a-F.j.

In **Annexure 4** a comprehensive description is provided of the SPCs and their Sub-Categories.

17.3 DESIGNATION OF SPATIAL PLANNING CATEGORIES

The designation of the SPCs as illustrated by Plan 2 was based upon the value system and environmental ethics described in Chapter 18 below.

The primary applications of the SPCs include the following:

- a) The SPCs provide a system in terms of which all land units or entities within the ODM will eventually be recorded in GIS, facilitating effective administration of land-use issues.
- b) The SPCs indicate the desired zoning of all land within a planning area. In addition, they identify specific types of land-uses that are not included in the existing Zoning Scheme Regulations, providing for a non-statutory and more detailed land-use classification.
- c) The SPCs facilitate decision-making regarding applications for a change in land-use. In this regard, it is important to note that a non-statutory zoning implies that any new development will be considered a diversion from the *status quo*, implying that applications will have to be considered by the relevant authorities in accordance with specific guidelines. For example, an application for the construction of new farm buildings within a tract of natural vegetation on the farm, implies a change in land-use from Category C.a (Extensive Agriculture) to Category D.g (Farmstead). Subsequently, the applicant will be required to ensure that the application conforms to the relevant place-specific planning and design principles.

This implies that the relevant authority will then be able to evaluate the application objectively and make an appropriate decision.

17.3.1 APPLICATION OF SPCs IN NATURAL LANDSCAPES

As referred to above, SPC A and SPC B and, to a significant extent, SPC C.a areas primarily relate to the *natural landscape*, which contains the *inhabited (human-made) landscape* (SPC C.b, D, E, and F).

Natural and human-made places are not homogeneous. A classification is required to describe the different characteristics and functions of different types of natural landscapes in order to develop a common language that can be used for spatial planning purposes throughout the province. Differentiation is, for example, made between Category A.a and A.b describing a higher and lower order status for statutory conservation areas.

SPC A.a and A.b areas would qualify as core areas of a UNESCO biosphere reserve. In terms of the classification and management criteria of SPC A.a, no development whatsoever would be allowed. SPC A.b, on the other hand, could accommodate footpaths and even overnight huts for hikers.

Whilst legislation may be in place to protect sensitive landscapes, vigilance is required to ensure that inappropriate decisions are not taken pertaining to their use. For example, it is quite conceivable that a new 4X4 route could be planned through an area by a well-meaning owner keen to promote tourism in the area. Whilst such a route may be acceptable in terms of its biophysical impact, it could destroy the visual quality of such a natural landscape. Therefore, through the provision of the classification of a 4x4 route, namely SPC F.f, a framework is created that will make it obligatory to change the land-use on which the 4x4 route is to be constructed from A.b to F.f. Such a framework would facilitate an investigation to determine if a 4X4 route should be allowed, and which route it should follow through the landscape.

If SPC areas are clearly and well mapped it will be possible for both the applicant and the officials involved in evaluating the application, to make objective decisions at an early stage of planning.

SPC B designation illustrates the following:

- a) Extent of the area that contains conservation-worthy habitats or habitat units.
- b) Extent of land, which should, ideally, be rehabilitated to improve the quality of the natural landscape and/or to promote biodiversity conservation.

It is important to recognize that SPC B.c and SPC B.d areas are primarily private property. The designation of SPC B.c and B.d areas does not imply that it is necessarily undesirable to undertake any development within such areas. Such designation is rather an indication that one must proceed with caution. SPC B.c and B.d provide an explanation of the nature and extent of the landscape characteristics of the particular area and present a basis for the evaluation of development proposals in proper context. SPC B.c designation, therefore, essentially represents an ideal, the achievement of which represents a challenge to the authorities, planners, developers and landowners.

SPC B.c designation does not take away any of the landowner's rights, nor does it grant any rights. It merely indicates that the particular tract of land is of importance to

biodiversity conservation and, consequently, to the well-being of the people of the area, and that due care should be taken in the management of the land.

The above ideal could be achieved through the implementation of innovative strategies, such as the establishment of a *Special Management Area* (refer to Chapter 22 below), which could be required as a condition of approval for rezoning or development rights on a property.

17.3.2 APPLICATION OF SPCs IN HUMAN-MADE LANDSCAPES

The human-made landscape is contained within the natural landscape. The symbiotic relationships between the two landscape types need to be understood and managed. SPC C (Agriculture), SPC D (Urban), SPC E (Industry), and SPC F (Surface Infrastructure) are land use types that form part of the human-made landscape.

The classification of the landscape in accordance with the SPCs will assist decision-making regarding which type of land use is considered desirable, or undesirable, in a particular place and what the reasons are for such a decision. For example, it is quite clear that it would be undesirable (in fact it should be impossible) to approve the establishment of an SPC E.b (Light Industry) within an SPC A.a (Wilderness Area). Under exceptional circumstances it may, however, be permissible to establish SPC E.b in an SPC Bc area (Ecological Corridor/Area).

On the other hand, the establishment of an SPC E.a area (Agricultural Industry) within an SPC C (Agricultural Area) will not have to be approached with the same caution as the latter example, because the proposed alternative land use (agriculture-related) will not be foreign to its setting. Similarly, an application to establish an SPC D.h (Resort and Tourism) within an SPC B.c or SPC B.d area would be more acceptable than and SPC E.d (Extractive Industry).

The designation of SPCs can help in many other ways. In the planning of a new divisional road (SPC Ed), or its upgrading and maintenance, one would, for example, give consideration to the character of the area(s) through which it is constructed. It can, for example, be argued that *Eucalyptus* (Bluegum) trees, which provide shade at roadside resting places along a route that meanders through an SPC C (Agricultural) area, are quite acceptable. However, where the SPC E.d (Divisional Road) traverses an SPC B.b or SPC A.b area, the use of such exotic species should be avoided and special care be taken to landscape road verges with indigenous plants.

In accordance with the SPCs, aspects of the above nature can now be considered by road engineers and managers on provincial, district and local planning levels much more objectively than was previously the case. In addition, such decisions can be taken in accordance with the requirements of bioregions, *neighbourhood areas*, and biosphere reserves, and in collaboration with the authorities and communities of such entities.

It is important to recognise that SPCs can facilitate a better understanding of the nature and quality of our landscapes and should serve as an important instrument in the preparation of IDPs and in environmental education. However, SPCs do not provide a quick-fix, blueprint planning type of solution which requires little judgement and thought.

17.4 MAPPING OF SPCs

It needs to be understood that SPC mapping, on the scale of the ODM as a whole, is very broad (rough grain). Vast areas are, for example, indicated as SPC B.c (Ecological Corridors/Areas), and C.a (Extensive Agriculture), which may give the impression that these areas are homogeneous. However, at closer inspection, one may find that these areas, in fact, include intensive agricultural sites, small settlements, surface infrastructure etc., which are too small to be indicated on that scale.

The intention is that finer grain mapping is to be undertaken at the local spheres of government. Plan 2 should be considered as a first-cut, broad-brush mapping, which provides the overarching framework within which refinement is to be undertaken. Such refinement lies in the hands of the local municipalities in collaboration with landowners and other I&APs.

Accordingly, it is imperative that society has to empower itself to develop a greater understanding of the qualitative nature of the environment (places) within which it lives. Such empowerment can be achieved through education, and debating the meaning of the things that make up our life-world. In order to achieve success in this regard, it is necessary to put into place policies, strategies and programmes, which would help facilitate a process of working together to achieve common goals.

18 VALUES AND ENVIRONMENTAL ETHICS: A MECHANISM FOR LAND-USE CLASSIFICATION

A primary aim of this SDF is to provide guidance to developers, land owners and individuals to help preserve the qualities of the places where they live, to restore degraded places, and to create high quality places within the context of sustainable development. In order to achieve the above objective, the SPCs described in Chapter 17 above was adopted to prepare a land-use plan (Plan 2). These SPCs incorporate both normative (qualitative value) and biophysical considerations.

The designation of SPCs was based on a code of environmental values and ethics, which is a fundamental element of judicious environmental planning. It is imperative that these values and ethics now be further developed and refined on the level of the Category B municipalities, and that they be used as basis for detailed land-use classification and decision-making regarding future development.

Whilst it is recognised that the preparation of such guidelines and standards is a complex task, it is nevertheless considered important to provide some rule of thumb principles, as a basis for the preparation of the SDFs of the Category B municipalities. In this regard, the SPCs are to be the basis of land-use designation that would, in addition to functional considerations, also reflect the qualitative dimension of the ODM as a specific place.

As stated above, environmental integrity is of fundamental importance for sustainable development and is largely influenced by land-use decisions. In turn, land-use decisions are influenced by specific values, norms and ethics. A general problem in this regard, is that the strong moral values, norms and ethics required for coherent decision-making are often not given the necessary priority, or are over-ruled by rules-based systems, resulting in, amongst others, non-sustainable land-use, development of low quality settlements, uncontrolled and rural sprawl, etc. These phenomena are evident throughout the ODM.

Therefore, in order to reverse the cycle of environmental degradation and non-sustainable development, it is imperative that a system of agreed-upon values, norms, and ethics be instated as the premise for all land-use decisions.

A good SDF should build on a strong value system, which recognises that each place and the things that collectively shape the environmental character of such a place have **intrinsic**, **instrumental** and **systemic** values. These values need to be carefully considered when contemplating the current and future use of any particular place.

In order to achieve the above, it is important that each place within the province be evaluated in accordance with a coherent value system that takes into consideration the unique mixture of values of that particular place, and a code of environmental, social, cultural and economic ethics.

18.1 TOWARDS A CODE OF ETHICS

It is important that environmental, social, cultural, and economic ethics appropriate to the ODM should allocate an equally important place to the conservation of nature on the one hand, and the improvement of the quality of life of people living in the environment on the other hand.

It is similarly important to understand that the need for a code of ethics lies in the detrimental impact of human activities on the environment that can be so intense that it threatens to undermine the very condition of our existence.

Since the dawn of culture, humans have modified the natural environment because no civilised humans can live in pure, pristine nature. However, due to *inter alia* explosive population growth and human greed, things changed and nature has become under severe pressure of inappropriate land-use and over-exploitation of resources.

Thus, it is clear that all existing and future land-use should be regulated in accordance with a code of ethics that recognises that we have a moral obligation towards the conservation of the environment and that our very existence depends on our decisions pertaining to the use of our environment and its resources.

18.1.1 GENERAL ETHICAL PRINCIPLES

From the above, stems a number of ethical principles that should be the basis of future land-use planning and management in the ODM, including the following:

- a) All life forms and ecological systems have intrinsic value.
- b) All people and organisations should act with due care to conserve and avoid negative impacts on biodiversity, and to use biological resources in a sustainable, equitable and efficient manner.
- c) The benefits derived from the use of the area's biological resources are dependent upon such resources being utilised at a rate within their carrying capacity (i.e. sustainable use), maintaining the ecological integrity of the natural systems which produce such resources and environmental services; minimising, or avoiding, the risk of irreversible change induced by humans; adequate investments being made to ensure the conservation and sustainable use of biodiversity; and avoiding or minimising the adverse impacts of the use of non-renewable resources on biodiversity.
- d) Benefits arising from the use and development of the area's biological resources should be shared in an equitable manner.
- e) Decision-makers and users of biological resources should be guided by socio-economic approaches, which assess the full social and environmental costs and benefits of projects, plans, programmes and policies that impact upon the environment (i.e. doing full cost accounting).
- f) Where there is a threat of significant reduction, or loss, of biological diversity but inadequate or inconclusive scientific evidence to prove this, action should be considered to avoid or minimise threats (i.e. adopting the precautionary principle).
- g) Interested and affected individuals and groups should have an opportunity to participate in decisions about the ways in which biological resources are conserved and used.
- h) The conservation and sustainable use of biodiversity should be integrated strategically at all levels into national, provincial, local and sectoral planning programmes, and into policy efforts (e.g. forestry, agriculture, fisheries, land reform, industry, education, health, mining, etc.) to implement the goals and objectives of the policy effectively.

18.2 CRITERIA OF VALUE

The ultimate challenge of environmental ethics is the conservation of life on Earth. However, life is not the only criterion of value. A 'mere thing' can also be something to be respected. There is value wherever there is creativity (Rolston, 1994:174). The World Heritage Convention recognises the importance and values of both natural environments and manifestations, and cultural (human-made) features that are of global conservation worthiness and makes provision for their protection.

It is suggested that three values be used to categorise landscapes namely *intrinsic value*, *systemic value* and *instrumental value*.

18.2.1 INTRINSIC, INSTRUMENTAL AND SYSTEMIC VALUES

The United Nations World Charter for Nature states that '*every form of life is unique, warranting respect regardless of its worth to man*' (Rolston, 1994). Natural ecosystems thus have intrinsic and systemic values that are independent of human use (i.e. instrumental values) and that are worthy of protection.

Broadly spoken, two different philosophical perspectives are possible when considering the value of any object or place, namely **what is it good for?** and **what is its own good?** The first question relates to its instrumental value, while the second deals with intrinsic value. Instrumental value uses something as '*a means to an end*' while intrinsic value refers to being '*worthwhile in itself*' (Rolston, 1994).

Systemic value relates to the fact that '*things do not have their separate natures merely in, and for themselves, but they face outward and co-fit into broader natures. Value seeps out into the system and the individual loses its status as sole locus of value*' (Rolston, 1994:174). Systemic value refers to the relations that things have with other things, and to the role they play in larger wholes.

18.2.2 DETERMINING VALUE

It is suggested that the above values be determined in accordance with the following basic questions:

- | | | |
|----|-----------------------------------|---|
| a) | <u>Intrinsic Value:</u> | What is the good of the place or thing? |
| b) | <u>Instrumental Value:</u> | What is the place or thing good for? |
| c) | <u>Systemic Value:</u> | What is the contribution of the place or thing to the health of the system that 'contains' it? |
| d) | <u>Current Status:</u> | What is the current status of the place or thing? |
| e) | <u>Vision:</u> | What could the place or thing look like, or be good for, if it was restored to pristine form? |

It is also suggested that these values be determined in a collaborative, participative process with all relevant stakeholders, representing an adequate mix of local, indigenous and scientific knowledge. It is important to note that the significance of the unique mix of current and potential values of a place should be duly recorded and properly translated into concrete, practical guidelines for the different stages of planning, design, decision-making, implementation and management of projects and plans. It is also envisaged that

the determination of the value of places will not be a once-off event, but rather an ongoing process.

18.3 CATEGORISING PLACES OR THINGS IN TERMS OF THEIR VALUES

In the planning process, places are categorised in accordance with a continuum ranging from the 'least modified' to the 'most modified' (refer to Diagram 9).

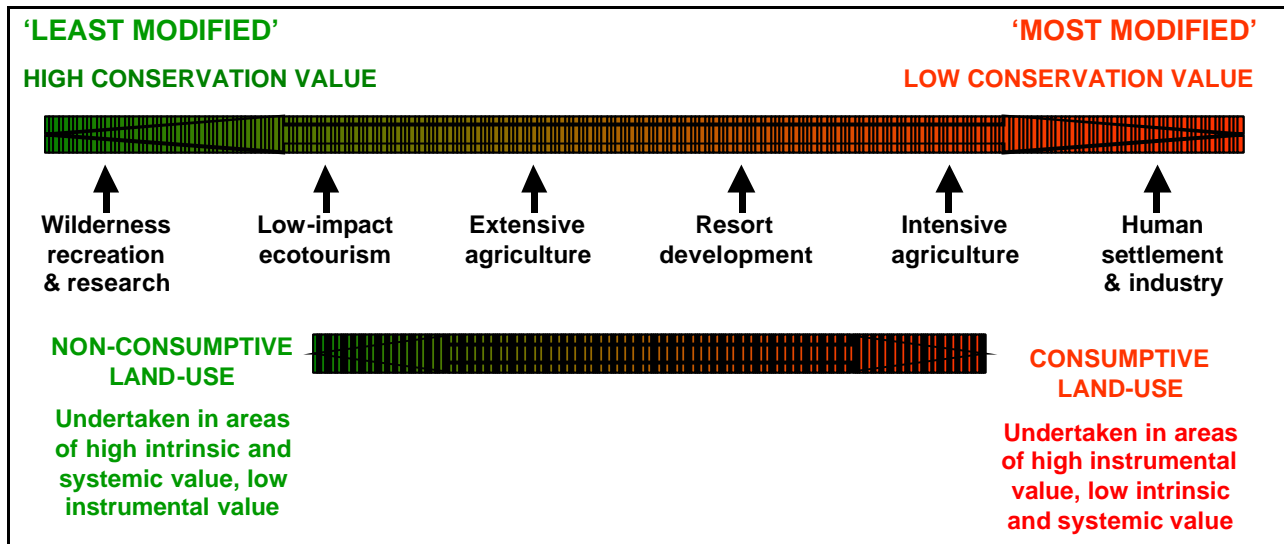


Diagram 9: Land-use continuum.

By organising land-use in terms of a continuum, a simple geometry generally emerges, namely compact settlements, encircled by productive rural landscapes, and a connected matrix of nature areas stretching across the planning area. With this geometry, human populations can exist side-by-side with productive rural areas and fully functional ecosystems.

The biosphere designation model provides an ideal mechanism for the spatial delimitation of core areas (least modified areas), buffer areas, and transition areas (most modified areas). As illustrated by Diagram 8, the concept implies the following:

18.3.1 'LEAST MODIFIED' AREAS

This category is generally represented by pristine wilderness and natural areas that have high intrinsic and systemic values, with relatively low instrumental values (considering their low-impact and non-consumptive land-uses). Such areas have the following functions and values:

- a) Representing benchmarks ('a base-datum of normality or naturalness') as standards for environmental health and self-sustaining ecosystems.
- b) Providing secure refugia for source populations and biodiversity.
- c) Allowing natural processes to continue without human interference (unlike management of other protected areas, wilderness management is essentially the management of human use and influences to preserve naturalness and solitude, not the management, alteration or control of the natural or processes themselves).
- d) Providing opportunities for solitude or primitive and unconfined types of recreation.

- e) Containing ecological, geological, or other features of scientific, educational, scenic, historical or cultural value.
- f) Providing ecosystem functions, including the provision of clean water from catchments, serving as carbon sinks, etc.

It is important to recognise that the intrinsic and systemic values of any natural environment is largely dependant upon the collective values of its components, and that any habitat fragmentation will have a negative effect on the value of the system as a whole. Permanent modification of a core conservation area will cause irreparable damage to both its systemic and intrinsic values. Development and 'consumptive' human activities within core conservation areas should therefore be prevented.

18.3.2 'MOST MODIFIED' AREAS

This category represents the most modified end of the continuum referred to above, and generally represents the most intensively developed cultural landscape, accommodating dense urban settlements and consumptive human activities.

In such areas little of the natural environment remains and the intrinsic and systemic natural values are generally low. However, the instrumental value of such areas may be high due to their direct contributions to the industries and industry-related developments that form a part of the economic base of the area.

A most important aspect is that even the 'most modified' cultural landscapes can have environmental integrity, and that this integrity is influenced *inter alia* by the manner in which people settle and utilise the environment.

In this regard, it is important to recognise that the *spirit of place* is manifested in *location, spatial configuration, and settlement boundaries* (Norberg-Schulz, 1984). Primary *structural properties*, such as the way buildings are constructed, etc. must be preserved in order to retain a particular *local quality* and protect the *atmosphere* of a place (Norberg-Schulz, 1984). It is this atmosphere, or intrinsic value, which first of all, ties people to their place and strikes visitors as a particular local quality.

In order to ensure that the intrinsic and systemic values of the human-made environment of the ODM is restored and conserved in the long-term, it is suggested that the five principles of critical regionalism described in Par. 25.2.1 be used to guide all future development and restoration.

18.4 APPLICATION OF VALUES AND ETHICS

The land-use continuum illustrated by Diagram 9 above implies a land-use pattern ranging from low human impact and sustainable non-consumptive land-use, to the highest intensity of human impact and consumptive and extractive land-use.

Diagram 10 on the following page illustrates the correlation between *intrinsic, instrumental* and *systemic* values, the least and most modified landscapes, and land-use intensities and types. In the actual process of future land-use planning, more extended and detailed lists of approved land-use, activities, infrastructure and facilities would be used.

The primary implications of the values and land-use hierarchy illustrated in Diagram 9 are the following:

- a) The core conservation areas represent the primary loci of the collective intrinsic and systemic value of the ODM and must therefore as far as possible be protected from development.
- b) Any development proposals must be subject to a strict code of environmental ethics and proponents must present conclusive evidence that the values of the development site will not be detrimentally affected by the development.
- c) Land with a high instrumental value, e.g. productive agricultural land, should be used, in a sustainable manner, for its designated instrumental land-use and be protected from any other land-use that is contrary to, or not supportive of, the above.

It is important to note that Diagram 10 does not illustrate, or give recognition to, areas that have a **high instrumental value as well as high systemic and intrinsic values**. In this regard, reference is made to pristine mountain catchment areas that have high systemic and intrinsic values, and also have a high instrumental value due to their water conservation functions. It is imperative that the conservation and appropriate management of such areas receive the highest priority.

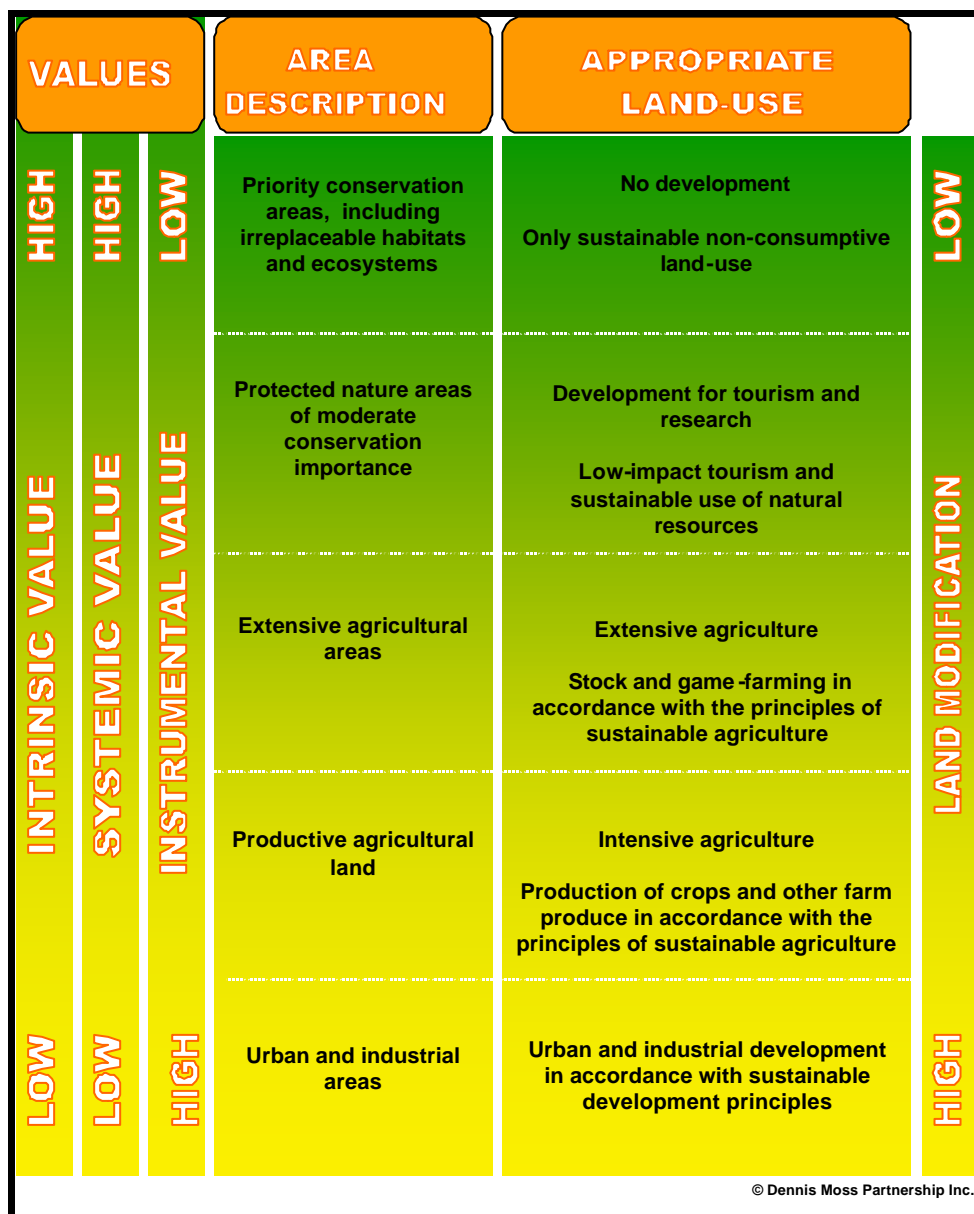


Diagram 10: Values and land-use hierarchy.

18.5 MONITORING AND COMPLIANCE

The ethical principles are presented to municipalities, planners, consultants, developers and land owners as an enabling framework that needs to be further interpreted and refined in planning, design, decision-making, management and operational terms.

The aim in this regard is to integrate the principles of environmental ethics and sustainable living in bioregions into a dynamic living and evolving practice, characterised by mutual exchange of ideas between local role-players and appropriate facilitators, as well as continual learning from experience.

The *Integrated Monitoring and Performance Management Systems* of the Overberg District Municipality and the Category B municipalities should ensure continual monitoring of compliance on project level with the ethical framework sketched above. Such compliance is to be ensured through *inter alia* regular audits. These procedures should not be experienced by developers and project operators as obstructive and punitive, but rather as co-operative and facilitative.

18.6 UNDERSTANDING THE ENVIRONMENT: A BASIS FOR DETERMINING VALUES

18.6.1 EXISTENTIAL MEANING OF PLACES

There is a widespread propensity to emphasise the role of functional, physical and biological factors in the formulation of policy and strategies, which are aimed at biodiversity conservation and planning, whilst the **existential meaning**²¹ that people attach to their places and the values that underpin such meanings, are being neglected.

In recent history, places were physically structured through the application of general standards and regulations pertaining to, amongst others, street widths, building guidelines in respect of lines and heights, erf dimensions, and minimum densities. These standards and regulations serve an important purpose in regulating development. However, because these regulations do not take cognisance of site-specific requirements and the existential dimensions of people's lives, they directly promoted the development of 'nowhere' places. 'Nowhere places' are generally characterised by *inter alia* a lack of structure and character, uncontrolled urban sprawl and extensive road and electricity networks that have negative ecological and aesthetical impacts.

Therefore, if one of the determinants of successful planning is accepted to be the value and meaning people attach to their places – what Lynch (1960) would call a '*joint between mind and setting*' – then it is necessary to consider and address the above much neglected existential meanings in bioregional planning.

In this regard, it is noted that bioregional planning is essentially a **place-specific** planning approach, which recognises that any *place* has a distinct *character* and *meaning* to the people living in that place and those people that visit the place. In addition, it is important to note that the environment influences human beings and *vice versa*. The quality and

²¹ Existential meaning is concerned with existence, especially with human existence as viewed by existentialism, which is a philosophical theory emphasising the existence of the individual as a free and self-determining agent.

nature of places have psychic implications and places cannot only be considered in functional or biophysical terms. *Humans cannot gain a foothold through scientific understanding alone* (Wagner, 1983).

Although there may be general consensus that historical patterns of resource consumption are non-sustainable and that current settlement patterns and practices are destroying the integrity of the environment, there is, as yet, little consensus on what has to be done on a practical level to address the situation. In this regard, questions need to be asked and solutions found for critical problems, such as the loss of the endearing qualities of towns and the countryside, urban sprawl, development impacts, and widespread degradation of the natural environment. In addition, it is clear that comprehensive place-specific solutions will have to be found within which chronic and interrelated problems such as crime, health care, education, pollution, etc. can be confronted.

It is generally accepted that development planning should be practical. It is, however, equally important to recognise the need to consider future development in terms of specific, agreed upon values, norms and principles and a justifiable theoretical framework. Bioregional planning addresses these challenges by *inter alia* creating the institutional framework for mobilising people to take action within the area (place) they regard as home and, through debate and education, create a greater understanding of the nature, depth and relevance of these challenges on the local scale, and the policies, strategies and actions required to address them.

The challenge is to create *places* where humans can live with dignity and pride and to manage these places in a manner, which would ensure long-term environmental sustainability. In the long-term, it will be the pride and care people have for their places, which will form the basis for sustainable development and management of the places of the ODM.

In this regard, IDPs, SDFs and SDPs should be an expression of the wishes of the people of an area in respect of **what kind of places** they want to live in and **what kind of future** they are aspiring for. In order to realise this objective, it is imperative to ensure compliance with the following primary requirements:

- a) Promoting an understanding for the places of the ODM in qualitative terms.
- b) Developing an appreciation for the things that provide the province and its component places with their unique qualities and give meaning to people's existence.
- c) Encouraging the people of the region to **think** about the nature and quality of their places in a fresh manner and to **express** their meanings, wishes and aspirations through formal planning structures and mechanisms provided for in the Western Cape Planning and Development Act.
- d) Enabling people to consider their place(s) in practical, qualitative terms and agree on a realistic policy framework.

18.6.2 A PHENOMENOLOGICAL UNDERSTANDING OF THE ENVIRONMENT

As stated above, a key aspect of bioregional planning is to develop a thorough understanding of the places where we live, in the quest to develop a comprehensive and realistic common appreciation of the meaning those places have for people and to re-evaluate the 'rules-based' criteria on which modern planning legislation and control are based. The required understanding can be described as a **phenomenological**

understanding²² of the environment. Such an understanding needs to be cultivated because, in the long-term, it would not help to try and solve practical problems without this understanding.

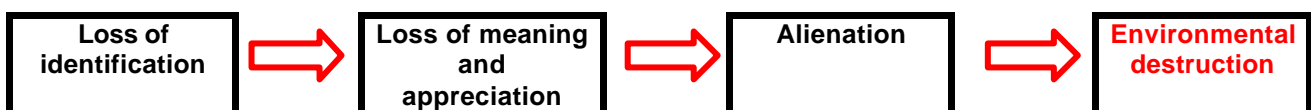
A phenomenological understanding of the environment is rooted in place and its material being and meaning. In addition, such an understanding is based on the concepts of **dwelling, building, thing** and the phenomenology of both the **natural** and **human-made place** described in Chapter 18.7 below.

A phenomenological understanding is based on the fact that all interrelated ecosystems and other phenomena are nested within one place, namely the biosphere. Thinking about a whole bioregion as part of the biosphere helps us to understand the interdependency and links between settlement and countryside, natural and cultural processes, water and land, communities and their surroundings. It also helps us to understand that in order to **dwell** in the biosphere in a sustainable manner, we need to understand the vital relationships that determine the ability of the biosphere to sustain life.

In this regard, it is important to note that to dwell implies a meaningful relationship between humans and a given environment. This relationship consists of the act of identification, or a *sense* of belonging to a certain *place* (Norberg-Schulz, 1993).

People's 'being in the world' is determined when they *settle*. *Settlement* is the first mode of dwelling – '*when settlement is accomplished, other modes of dwelling, which concern basic forms of togetherness, come into play, namely urban space, institution and house*' (Norberg-Schulz, 1993). *Settlement, urban space, institution and house* constitute the total environment where natural, collective, public and private dwelling takes place. Through identification with these places and the *things* around them, humans gain their own identity (Heidegger, 1975).

When humans lose their identification with natural and human-made things, which constitute their environment, and the latter has no *meaning* for them, they become *alienated*. When this happens, *things* become mere objects and nature in general is treated as a resource only, and environmental destruction occurs. Only if humans regain their ability of *identification* will they be able to stop the present destruction of the environment (Norberg-Schulz, 1993).



There is a need for humans to feel connected with the natural world. If humans have a strong sense and understanding of the phenomena of our life-world, they will understand these phenomena better, and thus will be more likely to perceive it as 'home'. This will, in turn, result in changes in decision-making processes and behaviour that can harmonise with the unique phenomena and special qualities of the environment as our 'home' (Norberg-Schulz, 1993).

It is therefore imperative that the people of the ODM must think about and appreciate the value of the phenomena of both their natural and human-made places. In order to promote a phenomenological understanding and a process of thinking about the places that

²² A phenomenological understanding refers to how we experience ourselves and how we experience **things** outside ourselves, that is, all that is not self (Wagner, 1983).

collectively form our life-world, it is important to have an appropriate understanding of the following:

18.7 PLACE: WHAT IS IT?

Our world consists of concrete phenomena such as people, animals, trees, stone, towns, water, homes, the moon, stars, clouds, night, day, etc. The concrete 'things', which constitute the world for humans, are interrelated and complex and some phenomena may comprise others. In general, it can be said that some phenomena form an 'environment' to others. The concrete term for 'environment' is *place* (Norberg-Schulz, 1984).

'Place' can therefore be defined as 'a totality of concrete things, which have material substance, shape, texture and colour'. These substances determine the environmental character, which is the essence of place (Norberg-Schulz, 1984).

However, whilst natural and material elements are usually the primary components of 'place' and the latter is usually described in physical or geographical terms, 'place' means more than a geographical location and comprises more than material substance. 'Place' also comprises intangible phenomena such as feelings, which provide the 'content' of human existence.

A primary objective of bioregional planning is to articulate the qualities of place in order to promote a better understanding of both the form (structure) and context (meaning) of place, with the aim to arrive at a point where agreement could be reached pertaining to the 'goodness' or value of a place. The qualitative nature of 'place-making' is considered integral to the sustainable development imperatives of human well-being and environmental integrity, and is therefore of decisive importance in the quest to achieve sustainable development. As is generally known, distinction is made between **natural place** and **human-made place**.

18.7.1 NATURAL PLACE

Natural place is broadly defined as the natural environment that has not been substantially modified by man and where natural ecosystem processes are maintained (Norberg-Schulz, 1993).

It is important to note that the natural place 'contains' the human-made places, and that the manner in which the latter are developed, has an enormous impact on the *intrinsic* and *systemic* value of the natural place.

The relationship between the inhabited and natural landscapes is a fragile one. However, although human presence alters natural places and makes true wilderness impossible, there can still be relatively natural environments where humans are in the picture (McKibben, 1999). In this sense, some rural environments in the ODM can remain natural environments (e.g. much of the Karoo). However, some agricultural environments are not natural anymore, owing to the drastic intervention and management. It is generally recognised that the more drastic the human intervention and management, the more nature has ended.

18.7.2 HUMAN-MADE PLACE

The human-made (cultural) place is defined as *the environment that has been created or modified by humans to the extent that its primary ecosystem functions and natural aesthetic appeal are lost or diminished* (Schmithusen, 1964).

Human-made places symbolise people's understanding of their environment and 'gather' a number of meanings (Norberg-Schulz, 1993). Human-made places generally fall into two broad categories, namely:

- a) The farm and agricultural village that are related to the land and, as such, form part of a particular environment, which has an influence on their structure.
- b) Urban dwellings within which the relationship to the natural environment has been weakened, or has been lost.

It is often overlooked that the inhabited landscapes are the works of humankind and that a general understanding of what constitutes qualitative inhabited landscapes, and what to do to maintain such landscapes, are of decisive importance for long-term sustainable development.

As stated above, it is also often overlooked that inhabited landscapes are contained by natural landscapes and that the relationship between the inhabited and natural landscapes is a fragile one. The quality and meaning of both are dependent on a shared understanding of the authenticity of the environment.

18.8 STRATEGIES FOR PROMOTING A PHENOMENOLOGICAL UNDERSTANDING OF THE ENVIRONMENT

In order to promote an appropriate understanding of the environment as our 'home' the following strategies are proposed:

- a) This SDF together with the SDFs of the Category B municipalities must recognise the need to develop this understanding.
- b) The Overberg District Municipality and the Category B municipalities must facilitate the provision of quality spatial data and interpretation to land managers to assist decision-making and adaptive management, and make regional natural resource information and knowledge widely available or accessible.
- c) Implement and sustain education programmes pertaining to the delicate relationships between places (environments) and their inhabitants, focussing on the responsibilities of the inhabitants regarding the protection of the ability of such places to sustain life.
- d) Encourage education institutions (e.g. schools) to incorporate appropriate environmental studies into curricula.
- e) Develop and conduct compulsory environmental courses for all municipal officials that are involved with land-use management and development.
- f) Provide, as a community service, information transfer and communication, and guidance in respect of resource management planning.
- g) Provide information dissemination and extension services to the general public to foster social and institutional transformations towards more sustainable land and resource use at regional levels.
- h) Develop a system of values and increase recognition and understanding of the latter. Promote recognition of these values in all decision-making pertaining to land-use and land management.

SECTION F: ESTABLISHMENT OF INTEGRATED LAND MANAGEMENT AREAS

SECTION SYNOPSIS

This section provides a description of and guidance regarding the establishment of integrated land management areas that will promote sustainable development throughout the ODM through the implementation of UNESCO's MAB Programme and biodiversity conservation. Such areas include the following:

- a) Biosphere Reserves.
- b) System of protected nature areas.
- c) Conservancies.
- d) Special Management Areas.

It is recognised that sustainable development will not be achieved by only conserving natural areas. It therefore is imperative that strategies be implemented to establish formally protected nature areas on conservation-worthy private land or to promote integrated land-use on such land.

In this regard, the Overberg District Municipality has directed that UNESCO's MAB Programme be adopted as a general basis and premise for the implementation of bioregional planning and management throughout the ODM.

Plan 2 (Land-Use), which is based on *inter alia* information put forward by STEP, SKEP and CAPE provides a framework for the establishment of a simple geometry of compact settlements, encircled by productive rural landscapes, and a connected matrix of nature areas stretching across the planning area. As stated above, with this geometry, human populations can exist side-by-side with productive rural areas and fully functional ecosystems and, most importantly, real sustainable development can be achieved.

It is proposed that all of the integrated land management programmes and areas advocated in the *Manual for Bioregional Planning in the Western Cape* (PGWC, 2003) be implemented throughout the ODM in order to promote sustainable development and obtain global support in this regard. In the chapters below, a description and guidance is provided in respect of the establishment of appropriate integrated land management areas, including:

- a) Biosphere Reserves.
- b) System of protected nature areas.
- c) Conservancies.
- d) Special Management Areas.

19 UNESCO'S 'MAB' PROGRAMME AND BIOSPHERE RESERVES

Globally, various programmes have been developed to implement bioregional planning on regional and local levels. One such programme is the **Man and the Biosphere Programme (MAB)**, launched in 1971 by UNESCO, as a global programme of international scientific co-operation dealing with people-environment interactions over the entire realm of bioclimatic and geographic situations of the biosphere.

Research under the MAB Programme was designed to solve practical problems of resource management, and aims to fill gaps in the understanding of the structure and function of ecosystems, and of the impact of different types of human interaction.

Key ingredients in the MAB Programme are the involvement of decision-makers and local people in research projects, training and demonstration at the field level, and the bringing together of disciplines from the social, biological and physical sciences in addressing complex environmental problems (Miller 1996).

A key element of the MAB Programme is the '**Action Plan for Biosphere Reserves**', which resulted from the work of the First International Biosphere Reserve Congress in 1983 in Minsk (Belarus), and was formally endorsed by the UNESCO General Conference and by the Governing Council of UNEP.

During the International Conference on Biosphere Reserves, held in Seville (Spain), in March 1995, the **Seville Strategy on Biosphere Reserves** was prepared, which provides a comprehensive summary of the MAB Programme, its major objectives and considerations relating to its implementation. **Annexure 5** provides a summary of the Seville Strategy.

19.1 PROVINCIAL POLICY ON THE ESTABLISHMENT OF BIOSPHERE RESERVES

PGWC supports the establishment of biosphere reserves as a mechanism for implementation of bioregional planning and management. As stated above, the *Western Cape Biosphere Reserve Draft Bill* is currently being finalised by PGWC. The Draft Bill *inter alia* makes provision for the establishment of a provincial MAB Committee and will facilitate the establishment and management of biosphere reserves.

The establishment of biosphere reserves will be undertaken in collaboration with all I&APs and with due recognition of social, economic and ecological criteria. The establishment of biosphere reserves will furthermore be based on the *cluster* biosphere reserve plan prepared by Cape Nature Conservation during 1991 (refer to Figure 15 on the following page).

Given the strategy of this province pertaining to the establishment of a clustered system of biosphere reserves throughout the province, the following Seville Strategy objectives are of particular importance, namely:

Objective 1.1: *Improve the coverage of natural and cultural biodiversity by means of the world network of Biosphere Reserves.*

Objective 1.2: *Integrate Biosphere Reserves into conservation planning.*

Objective 1.3: *Integrate Biosphere Reserves into regional planning.*

Objective 1.4: *Improve education, public awareness and involvement.*

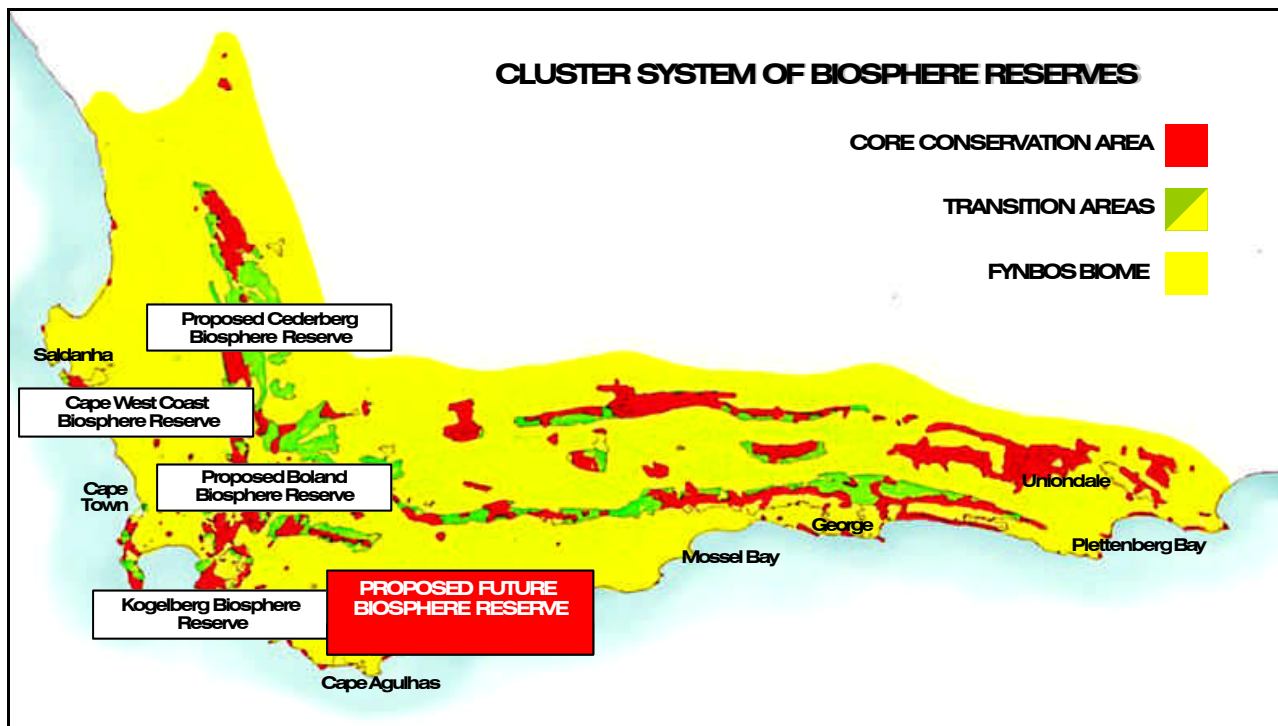


Figure 15: Proposed Fynbos Cluster Biosphere Reserve Network (Department of Environmental and Cultural Affairs, 1991).

A fundamentally important aspect of the buffer area of a biosphere reserve, which can have an immense impact on the effective functioning of any biosphere reserve, is that it generally consists of privately-owned land. In this regard, the following is noted:

- (i) Such private land is included into a biosphere reserve on a voluntary basis.
- (ii) The biosphere designation does not take away any existing rights, nor does it grant any rights to the owner.
- (iii) Land-use that is compatible with the biosphere reserve principles is not mandatory on the owner of such land.
- (iv) The parameters of a buffer area of a biosphere reserve are, in terms of UNESCO's demarcation criteria, considered to be 'soft boundaries'. This implies that there is no official cadastral boundary of a biosphere reserve applicable to privately-owned land.

The premise is therefore that the initial designation of private land as part of a biosphere reserve is merely an ideal. In order to formalise such designation, it is imperative that innovative strategies be implemented and that such strategies should make landowners enthusiastic about being included into the biosphere reserve. In addition, effective biosphere reserve management includes the formulation and implementation of strategies to encourage the appropriate management of such private areas.

PGWC believes that the biosphere reserve is an excellent model for land management and the promotion of effective and practically achievable approaches to sustainable development. To achieve success in the long-term it is, however, important to recognise that the act of establishing biosphere reserves, on its own, will achieve very little in the

long term. The challenge is to utilise the opportunity and status that biosphere reserves offer in an innovative and strategic manner in order to foster a spirit of co-operation between stakeholders (including private landowners, inter- and intra-government, communities etc.). This co-operation is a prerequisite to achieve tangible positive results in the promotion of sustainable development.

19.2 KEY ASPECTS OF BIOSPHERE RESERVES

19.2.1 DEFINITION

Biosphere reserves are defined as '**areas of terrestrial and coastal/marine ecosystems, or a combination thereof, which are internationally recognised within the framework of UNESCO's MAB Programme**'.

Biosphere reserves should not be confused with clearly defined and proclaimed nature reserves. Whilst biosphere reserves are defined in geographical terms, its outside boundaries should be viewed as soft boundaries. This is due to the fact that the border areas will, in truly successful biosphere reserves, cover privately owned land where the co-operation of landowners is a prerequisite for long-term success.

Biosphere reserves should not be seen as islands but as an integral part of a regional planning and development strategy aimed at promoting sustainable development. Strategies need to be instituted to ensure that the model that biosphere reserves offer for land management, is implemented in a practical and beneficial manner.

To achieve sustainable development within biosphere reserves, UNESCO has prepared a Statutory Framework, which *inter alia* states that biosphere reserves should strive to be sites of excellence to explore and demonstrate approaches to conservation and sustainable development on a regional scale.

Biosphere Reserves are nominated by national governments. The MAB / Biosphere Reserve Programme is an inter-governmental programme, which in South Africa, falls under the auspices of the Department of Environmental Affairs and Tourism (DEAT).

In terms of the Seville Strategy, each biosphere reserve must meet a set of criteria and adhere to specific conditions before being admitted to the World Network of biosphere reserves.

19.2.2 FUNCTIONS

Internationally, there is widespread agreement that biosphere reserves provide a useful model and starting point for bioregional planning and management. They give physical effect to the MAB Programme and have been designed as tools for reconciling and integrating the conflicting interests and pressures that characterise land-use planning. They are the most widely implemented and recognised of the various bioregional planning programmes.

It is important to note that the objective of the MAB Programme is to promote the achievement of sustainable development through the establishment and management of specific places (biosphere reserves) where three functions are served, namely **development, conservation** and **logistical support** (refer to the diagram on the following page). Achieving the three imperatives for sustainable development, namely

environmental protection, human well-being, and economic efficiency is therefore encapsulated in the biosphere reserve concept.

The development function refers to the actions required to foster human and economic development, conservation refers to the conservation of biological diversity and genetic material, whilst logistical support refers to scientific research, education and financial support.

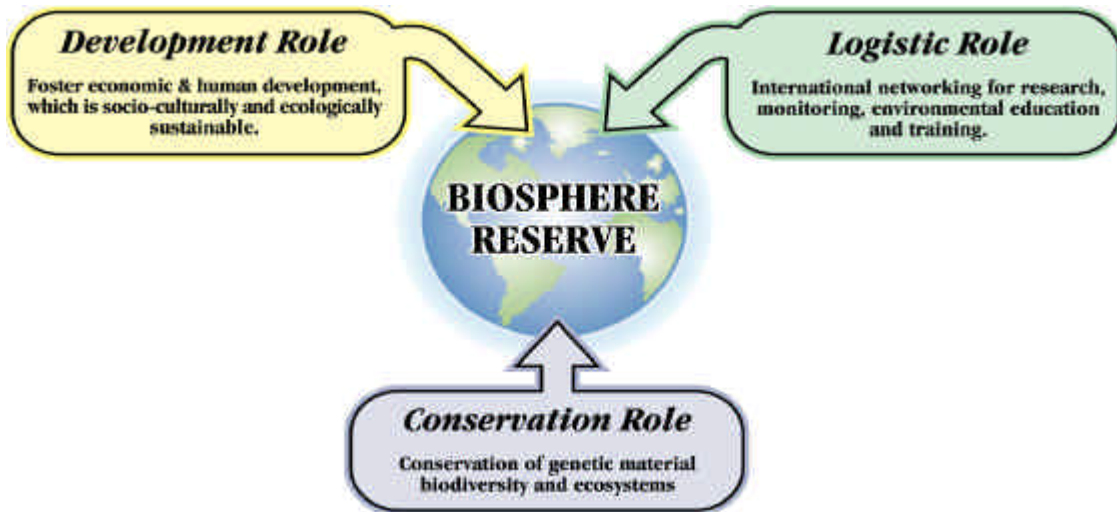


Diagram 11: Functions of biosphere reserves.

19.2.3 STRUCTURE OF A MODEL BIOSPHERE RESERVE

The biosphere reserve concept is based on a structure of *interrelated areas* covering the entire planning area (refer to Diagram 12 below). Appropriate conservation status and land use(s) are assigned to each area.

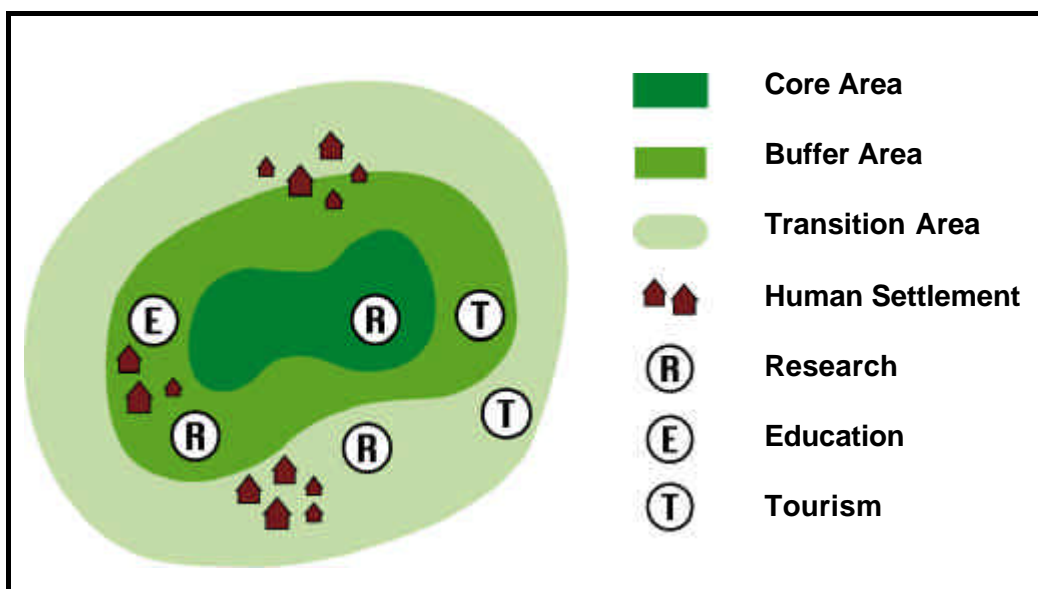


Diagram 12: Structure of a model biosphere reserve.

Although originally envisioned as a series of concentric rings, the three areas have globally been implemented in many different ways in order to meet local needs and conditions. In

fact, one of the greatest strengths of the biosphere reserve concept has been the flexibility and creativity with which it has been carried out in various situations.

Some countries have enacted legislation specifically to establish biosphere reserves. In many others, the core areas and buffer areas are designated (in whole or in part) as protected areas under national law. Many biosphere reserves simultaneously form part of other national conservation areas (such as national parks or provincial nature reserves) and/or other international networks (such as World Heritage Sites or RAMSAR Sites).

Ownership arrangements of the various areas may vary. The core areas of biosphere reserves are mostly public land, but can also be privately owned land that has permanent statutory protection, or land of similar status that belongs to NGOs. In many cases, the buffer area is in private or community ownership, as is generally the case with the transition area. The three area types of a biosphere reserve are summarised in Table 29 below.

Table 29: Biosphere reserve areas and their functions.

CORE AREA	
GENERAL DEFINITION:	
The <i>Core area</i> is a statutorily protected site designated for the conservation of biodiversity, monitoring of ecosystems, and non-disruptive, non-consumptive land-uses, such as outdoor recreation, bench-mark research, and environmental education.	
DESIGNATION CRITERIA AND GUIDELINES	PRIMARY FUNCTIONS
<ul style="list-style-type: none"> a) Natural areas with statutory conservation status. b) Natural areas that are <i>relatively</i> undisturbed by human activities or that have the potential to be restored to such a state. c) Areas which are representative of specific habitat or landscape types, and which have high scenic values. d) Should be large enough to contribute effectively to the conservation of rare and endangered species. e) Presence of outstanding natural features, unique geology; fossil remains; sensitive habitats; endemic species. f) Areas of archaeological importance; containing historical sites or features. 	<ul style="list-style-type: none"> a) <i>In situ</i> biodiversity conservation. b) Conservation of representative examples of ecosystems. c) Monitoring pristine ecosystems. d) Base-line research. e) Water conservation. f) Non-consumptive land-uses (e.g. 'wilderness outdoor recreation'). g) Environmental education.

BUFFER AREA

GENERAL DEFINITION:

A defined natural area surrounding the core area. This area ‘protects’ the core area against consumptive human activity and is used for co-operative non-consumptive activities, including environmental education, eco-tourism, benchmark research, and specific sustainable agricultural activities.

DESIGNATION CRITERIA AND GUIDELINES	PRIMARY FUNCTIONS
<ul style="list-style-type: none"> a) Areas containing a large percentage of natural vegetation, unique landscape features, important archaeological and cultural-historic sites. b) Natural corridors, or linkages comprising rivers, continuous tracts of natural vegetation. c) Areas that have other unique features such as uninterrupted views and vistas. d) Areas where any form of development, including agriculture, requires strict control. 	<ul style="list-style-type: none"> a) ‘Protecting’ the core area from negative unnatural impacts. b) Enhancing the natural functioning of the ecosystem(s) within the core area. c) Accommodating low-impact land-uses and development (e.g. for ecotourism). d) Providing for environmental education; <i>in situ</i> biodiversity and water conservation.

TRANSITION AREA

GENERAL DEFINITION:

The flexible transition area, or ‘area of co-operation’, accommodates a variety of non-consumptive and consumptive activities, such as agriculture, settlement development and other disruptive land-uses. In this area, local communities, management agencies, scientists, non-governmental organisations (NGOs), cultural groups, economic interest groups and other stakeholders work together to manage and develop the area’s resources in a sustainable manner.

DESIGNATION CRITERIA AND GUIDELINES	PRIMARY FUNCTIONS
<ul style="list-style-type: none"> a) <i>Bona fide</i> agricultural and forestry areas. b) Existing urban settlements together with their industrial areas and rural hinterland. 	<ul style="list-style-type: none"> a) Surrounding the buffer area and representing an area where the natural and cultural environment is of high value. Low-impact land-uses are allowed in this area (e.g. fynbos utilisation, ecotourism with small-scale resort development). b) Accommodating activities that extract natural resources and supply food and other primary materials (e.g. agriculture, forestry, mining). c) Including urban areas where the highest intensity of human activity is found, ranging from small towns to large metropolitan areas.

19.3 BIOSPHERE RESERVE PROPOSAL FOR THE ODM

19.3.1 KEY CHARACTERISTICS PROVIDING MOTIVATION

As stated above, the studies that have been undertaken during the preparation of this document, together with the IDPs of Overberg District Municipality and the various Category B municipalities revealed a number of key characteristics that justify the establishment of a biosphere reserve in the ODM. These include the following:

- a) The ODM comprises unique natural attributes that justify its status as a national asset.
- b) The natural environment and its resources of the ODM are sensitive and susceptible to over-exploitation or inappropriate use.
- c) The ODM supports viable economic sectors.
- d) The ODM comprises a significant cultural heritage.
- e) The ODM includes natural ecosystems and habitats that are of global importance.
- f) There is a substantial need for social upliftment and community development.

19.3.2 COMPLIANCE WITH UNESCO'S SELECTION CRITERIA

Section 4.4 of the Seville Strategy on Biosphere Reserves (refer to Annexure 5) stipulates that the following criteria be applied when an area is considered for nomination as a biosphere reserve:

- a) It should encompass a mosaic of ecological systems representative of major biogeographic regions, including a gradation of human interventions.
- b) It should be of significance for biological diversity conservation.
- c) It should provide an opportunity to explore and demonstrate approaches to sustainable development on a regional scale.
- d) It should have an appropriate size to support the three functions of biosphere reserves.
- e) It should promote these functions, through appropriate zonation, recognising the following:
 - (i) Legally constituted core areas, or areas devoted to long-term protection, according to the conservation objectives of the biosphere reserve, and of sufficient size to meet these objectives.
 - (ii) Buffer areas clearly identified and surrounding or contiguous to the core area, where only activities compatible with the conservation objectives can take place.
 - (iii) Transition areas where sustainable resource management practices are promoted and developed.
- f) Organisational arrangements should be made for the involvement and participation of a suitable range of, *inter alia*, public authorities, local communities and private interests, in the design and carrying out the functions of a biosphere reserve.
- g) In addition, provisions should be made for:
 - (i) Mechanisms to manage human use and activities in the buffer area.
 - (ii) A management policy and management plan for the area as a biosphere reserve.
 - (iii) A designated authority or mechanism to implement this policy and plan.
 - (iv) Programmes for research, monitoring, education and training.

19.3.3 BIOSPHERE RESERVE PLAN

Having considered UNESCO's criteria for the nomination of biosphere reserves as well as the aspects list under Par. 19.3.1 above, it is submitted that there is conclusive evidence that a biosphere reserve could and should be established in the ODM. Such an initiative would give effect to the provincial policy on the establishment of biosphere reserves and its cluster biosphere reserve programme illustrated by Figure 15 on Page 151.

It is therefore proposed that a programme be initiated to establish a biosphere reserve in the ODM, using **Plan 3** as a basis and supplementing it with detailed scientific data to be obtained from continued research by amongst other STEP, SKEP and CAPE.

20 SYSTEM OF PROTECTED NATURE AREAS

A fundamental principle of bioregional planning is that **biodiversity conservation** is a prerequisite for sustainable development, and that for biodiversity conservation to succeed, the maintenance of environmental integrity (as defined by ecological, economic and social criteria) must be one of the primary determinants of bioregional delimitation and land-use planning.

In this regard, the Overberg District Municipality supports the notion that a system of protected areas is a key element of any strategy to maintain biodiversity and ecosystem functions (e.g. the provision of a sustainable stream flow of high quality water). It is imperative that such a system should be designed and managed to represent and protect the diversity of ecological processes, communities, species and gene pools (Global Biodiversity Strategy, 1992). The functions of protected nature areas go far beyond the usual perception of the term 'protection'. Such areas are immensely valuable, beyond their boundaries, in providing for the rehabilitation of environments, as nutrient sinks, for landscape stability, and the replenishment of species, populations and communities. The primary objective of any system of protected nature areas would be as much to restore ecosystems and their functions as to protect them.

This emphasises that sustainability requires planning and management for biodiversity conservation across human dominated landscapes. *To achieve this, protected areas should no longer be considered as islands of conservation within a sea of development but as an integral part of each region as a whole in terms of biodiversity conservation* (Institute of Bioregional Resource Management).

As stated above, the bioregional planning policy of PGWC promotes the establishment of a network of protected natural areas covering conservation-worthy areas (refer specifically to those areas that have a high intrinsic and systemic value as described in Chapter 18). Such a network is necessary because it is clear that sustainable development will not be achieved by only conserving natural areas. In this regard, strategies will have to be implemented to establish formally protected nature areas on conservation-worthy private land. In this regard, the following principles need to be adhered to:

- a) The mutual relationships and linkages between land units must be understood and applied when delimiting and managing these units. This implies that a system of ecological corridors needs to be created, linking statutory and/or *de facto* nature areas.
- b) The protected nature area system should, wherever possible, transect the bioregions from low to high elevation and through terrestrial, freshwater and marine areas, wetlands, rivers, forests, and other ecosystem types, as well as the full range of climate, soil types, geology, etc.
- c) The reserves should be large enough to provide functional habitat for the indigenous organisms that inhabit them. Where necessary, they should be rehabilitated and critical 'keystone' species should be re-introduced. They should also be large enough to support natural disturbance regimes such as 'natural' wildfires, floods, and storms that play a critical role in their dynamics. In order to provide evolutionary continuity, such disturbance regimes should either occur naturally, or be carefully mimicked through management intervention techniques.
- d) The system should include representation from all levels of biodiversity, including populations, species, and landscapes.
- e) It should include terrestrial, freshwater, and marine ecosystems.

- f) The system should be managed in a way that honours long-standing, benign uses by local people for whom the system should include places of spiritual and cultural renewal.
- g) The reserves should as far as possible be protected by appropriate buffer areas.

In this regard, the objective is to facilitate the establishment a system of protected nature areas that radiate out from core reserves, and that are connected through a network of ecological corridors and buffer areas where people pursue livelihoods subject to an agreed-upon system of values and environmental ethics (refer to Chapter 18). The establishment and management of such a system are to be undertaken in accordance with the bioregional planning approach described in this document. It is envisaged that the statutory protected areas will form the core areas of the biosphere reserved proposed for the ODM.

It is recognised that a protected area system is not the solution in itself. The ultimate success of any such system will depend on the effectiveness of a wide range of applications outside the reserves. These applications include the following:

- a) Effective integration of the reserves with its surrounding environments, which could be achieved through the establishment of conservancies.
- b) Recognition, and appropriate management, of ecological corridors that link the formal conservation areas.
- c) Appropriate management of private land that form part of the ecological corridors and sustainable use of resources, which could be achieved through the establishment of Special Management Areas (refer to Chapter 22).

In the ODM many protected areas do not represent the diversity of ecosystems and species assemblages adequately. Individual reserves do not necessarily contribute to the maintenance of ecological processes and function at regional and larger scales. It is imperative that proposals for new reserves must be efficient and scientifically defensible. In this regard, the work undertaken by *inter alia* STEP, STEP and CAPE is of utmost importance in that it provides a framework for the creation of an integrated system of protected nature areas.

In this regard, it is important to note that the SPCs described in Chapter 17 above, clarify and provide standard definitions for the various categories of conservation areas, which correspond with the statutory descriptions and UNESCO's classification.

20.1 PLAN FOR PROTECTED NATURE AREA SYSTEM

It is proposed that a programme be initiated by the District Municipality to establish a system of protected nature areas that include the existing statutory conservation areas (SPC A, B.a, and B.b), *de facto* SPC B.c areas (ecological corridors), designated SPC B.d areas (rehabilitation areas), and specifically the *priority conservation areas* (i.e. highly irreplaceable habitats and broad habitat units) indicated by the maps of STEP, SKEP and CAPE. **Plan 4** provides a framework for the establishment of a system of protected nature areas throughout the ODM. **Plan 4 is to serve as a primary input when considering proposals pertaining to land-use changes. Plan 4 is therefore also provided in the form of a transparent overlay.**

21 CONSERVANCIES

The Overberg District Municipality supports the establishment of conservancies as a mechanism or strategy to promote sustainable land-use over a group of larger land units. Although conservancies are generally associated with natural areas, they can also include urban or developed areas (in the form of an 'urban conservancy'). The establishment of conservancies is a voluntary action and conservancies have no statutory status.

A conservancy is broadly defined as a group of farms, or natural areas, on which the landowners have pooled some (or all) of their resources for the purpose of conserving natural resources on the combined properties. These resources include wildlife and their habitats, indigenous vegetation, forests, catchments, sites of geological and archaeological importance, and generally undisturbed natural and scenic landscapes.

In conservancies, the actual landowners become involved (at community level) in the conservation of their resources. The conservancy model, thus, implies that the conservation of resources is in the hands of the people who are directly affected by the condition of those resources and who care about them (or should be caring about them).

Further motivation for the establishment of conservancies include the following:

- a) A key advantage of the conservancy model is that it can contribute to the establishment of a system of protected nature areas (refer to Chapter 20 above).
- b) The conservancy model is considered to be a viable mechanism for conserving natural resources on private land and for promoting integrated land management on a broad scale. The establishment of a conservancy improves the status, and variety of wildlife and other natural resources in an area, by means of sound conservation management principles. A conservancy can include statutory conservation areas and other forms of protected land.
- c) Conservancies can serve as '*building blocks*' and 'set the table' for including suitable private land-holdings into a biosphere reserve in a coherent and constructive manner and provide for the rehabilitation of such land to the extent that it will fulfil a meaningful role in respect of all three of the roles of a biosphere reserve as contemplated by the Seville Strategy on Biosphere Reserves.
- d) Conservancies can provide a framework for collective decision-making in respect of *inter alia* rezoning applications, density and nature of proposed development, placement of potentially detrimental infrastructure and facilities (e.g. refuse dump sites, roads, electricity networks, etc.).
- e) A combined effort, extending across the boundaries of individual farms, will ensure more extensive areas under conservation management. This is in accordance with the bioregional planning concept, which promotes *holistic* environmental planning.
- f) The conservancy, with its larger size implications, will be better able to conserve a wider diversity of natural habitats and promote integrated environmental management practices on a broad scale.
- g) A co-operative conservancy approach provides a broader and more viable basis for economic benefits for landowners within the conservancy through, amongst others, integrated eco-tourism, fynbos harvesting and hunting.
- h) The conservancy model encourages effective application of conservation objectives on land that is marginal for agriculture, thereby enabling large areas of land to remain in a pristine condition, or to recover to such a condition.

For a conservancy to be optimally effective as a bioregional planning mechanism, it is imperative that the conservancy be delimited in accordance with the delimitation criteria proposed for bioregions (refer to Chapter 16 above) and, in particular, the neighbourhood area as a key component of the bioregion.

The establishment of conservancies in the Western Cape is currently facilitated by the Western Cape Nature Conservation Board (WCNCB) in accordance with the process illustrated by the diagram below.

PROCESS FOR ESTABLISHMENT OF CONSERVANCIES

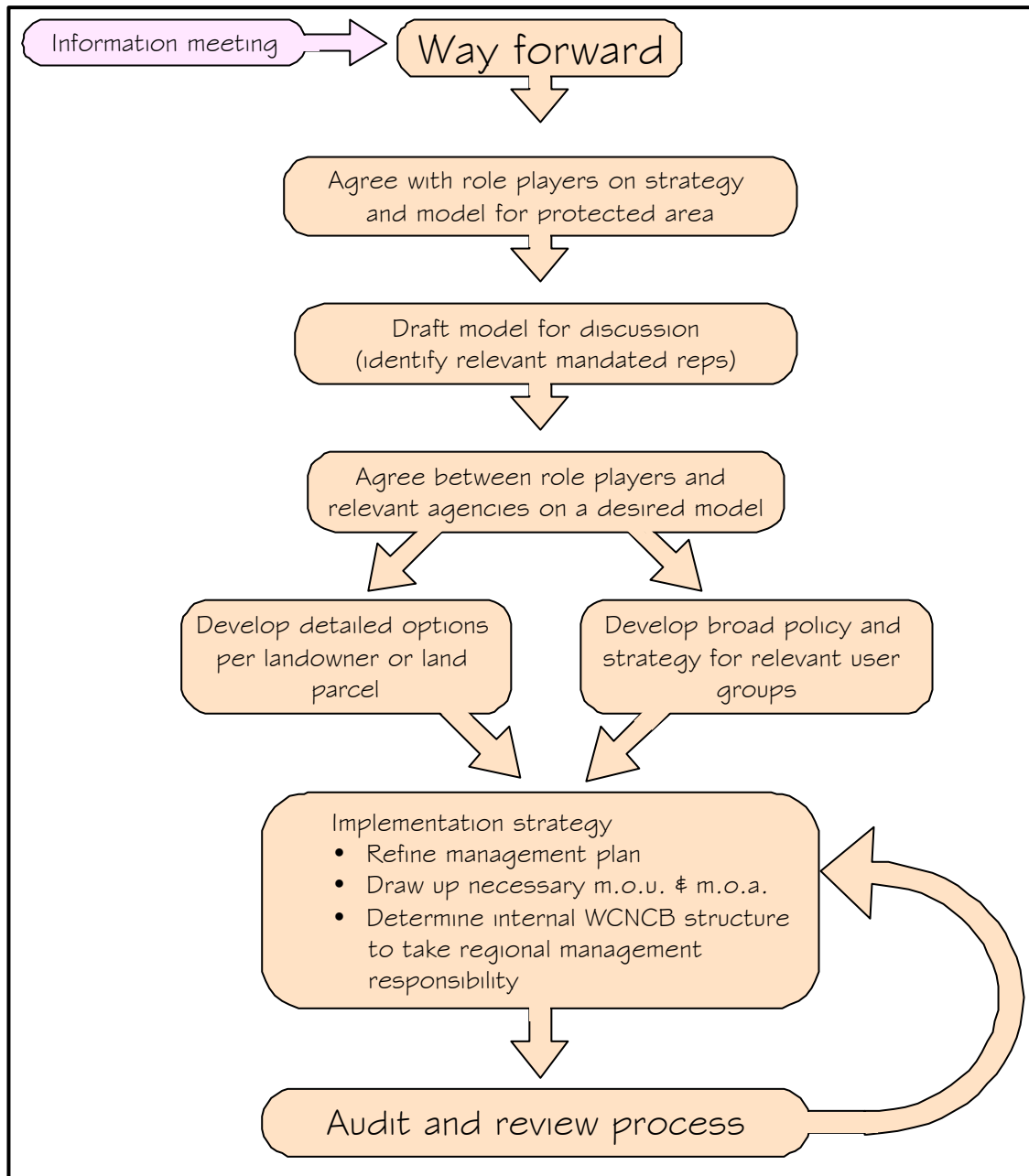


Diagram 13: Process for the establishment of conservancies (From: WCNCB).

22 SPECIAL MANAGEMENT AREAS

An SMA is defined as '*an area of excellence and good practice*', where the ethos of sustainable development is served in practice. An SMA is further described as a cadastral geographical unit, which is formally recognised and managed as an area where environmental sustainability is promoted in practice and in accordance with international standards for environmental sustainability.

A primary overarching goal of the Overberg District Municipality is to improve the general status and sustainability of both the natural and the human-made environment throughout the ODM. In this regard, the aim is to create positive precedents through the implementation of innovative mechanisms or strategies.

The establishment of a Special Management Area (SMA) is considered by the ODM as a fundamentally important mechanism in this regard, which is of relevance to land owners, authorities, planners, and developers.

An SMA should only be established over a land unit designated by the Surveyor General and registered at the office of the Registrar of Deeds. Both public and private land can be declared an SMA, and both natural, cultivated (i.e. farmland) and inhabited land can be included into an SMA. Privately-owned land can be declared an SMA by establishing a contractual agreement between the landowner and the relevant municipality.

The SMA can be required as a condition of approval where new or additional land-use rights or rezoning have been granted. In such instance the contractual agreement would *inter alia* ensure compliance with the conditions of approval. As such, the establishment of an SMA could be a viable mechanism for ensuring long-term environmental sustainability on the relevant property, as such presenting a positive precedent as is promoted by PGWC.

In an SMA, the landowner will manage the environment and its resources in accordance with an Environmental Management System (EMS) or an Environmental Management Plan (EMP) that conforms to international standards for environmental management (e.g. ISO²⁴14001).

An important aspect of the establishment of an SMA is that the landowner will be required to establish a trust fund, which will ensure that the necessary financial resources are available for effective long-term management of the SMA.

The sustainability of the trust fund could be ensured by providing for funds to accrue to the fund over time. In the case of housing development, provision could, for example, be made for a percentage of the selling price of land, upon transfer, to accrue to the trust fund. In addition, provision could be made for a percentage of the total revenue turnover of the enterprises operative within the SMA to accrue to the trust fund.

In the case of a housing development that forms part of an SMA, the Home Owner's Association (HOA)²⁵ generally required in terms of Section 29 of the Land Use Planning

²⁴ ISO (the International Organisation for Standardisation) is a world-wide federation of national standard bodies (ISO member bodies).

²⁵ The establishment of a HOA is a well-established principle that is usually applied in resort developments. Its main purpose is usually to manage and administer the development, including the transfer of erven to

Ordinance, 1985 (No. 15 of 1985), or some other constituted organisation (e.g. a Section 21 Company) will be responsible for the management of the SMA and its trust fund.

In respect of an on-farm settlement within an SMA, the EMS should include guidelines to facilitate the relationship between the landowner and the farm workers, including tenure arrangements (e.g. long-term lease and occupation rights of farm workers). These guidelines will be in accordance with the Extension of Security of Tenure Act (ESTA), 1997 (Act 62 of 1997) and the *Western Cape Policy on the Implementation of ESTA/Long-term Security of Tenure for Farm Workers*, October 1998 (Provincial Gazette No. 5294).

Where a farm has been declared an SMA by its owner, a primary purpose of the SMA will be to provide a framework for undertaking sustainable agriculture²⁶. In this regard, the SMA and its EMS will facilitate adherence to the following principles of sustainable agriculture:

- a) Physical-biological productivity** (maintain and/or improve production/services)
 - (i) Maintain existing fundamental values, technologies and structures supporting sustainable and viable agricultural enterprises.
 - (ii) Develop and apply new technologies to improve the efficiency of farming practices.
- b) Economic security** (reduce production risk and uncertainty)
 - (i) Encourage local processing of farm products and the provision of local farm services to enhance the rural economy, increase the viability of agricultural production and reduce rural poverty.
 - (ii) Retain all the productive agricultural land for agricultural use.
- c) Environmental protection** (protect production potential of natural resources)
 - (i) Integrate land-use planning and community participation to ensure optimum management and utilisation of natural resources.
 - (ii) All farmers are responsible and accountable for the conservation of natural agricultural resources.
 - (iii) Land-users causing unacceptable degradation of the natural environment are responsible for rehabilitation of mismanaged natural agricultural resources.
 - (iv) Real cost of natural resources must be reflected in the pricing of these resources so as to discourage abuse.
- d) Social acceptability and justice** (promote/establish social acceptability)
 - (i) Ensure equitable access to resources to all communities.
 - (ii) Provide access to agriculture via land reform in accordance with environmental requirements and with full participation and consent of all the affected communities.

new members. It is usually also responsible for the maintenance and management of common property (i.e. community facilities, open spaces and internal services).

²⁶ **Sustainable agriculture** is an approach as well as a process through which different management and technological activities and socio-economic principles are reconciled with environmental requirements (Smyth and Dumanski, 1993).

22.1 ESTABLISHING A SPECIAL MANAGEMENT AREA

22.1.1 ROLE-PLAYERS

a) Public Sector

It is incumbent upon government to show commitment to the promotion of IDP policy and to demonstrate, in an exemplary manner, how policy can be successfully implemented. The SMA mechanism presents the ideal opportunity for government to achieve this. Local, provincial and national government may, by formal resolution, or inter-governmental agreement, establish and manage an SMA on own accord.

The public sector can establish an SMA over a specific demarcated area (such as an area around a town, i.e. commonage land). This should be undertaken in accordance with agreements with the relevant I&APs. Such agreements could, for example, be established through the IDP process.

The establishment of an SMA provides an ideal vehicle through which public-private partnerships can be arranged in order to promote environmental sustainability in general, or to facilitate a specific project.

b) Private Sector

In the private sector, an SMA can be established in accordance with the following guidelines:

- (i) It can give effect to the statutory conditions of approval for rezoning, or the granting of new land-use rights.
- (ii) The establishment of an SMA can be ratified through a contractual agreement between the owner of a fixed property and the relevant municipality.
- (iii) The contractual agreement will constitute the legal framework determining the obligations of the parties involved.
- (iv) The contractual agreement must always provide for the SMA to be managed in accordance with an appropriate EMS, which must incorporate the landowner's obligations pertaining to the preparation and execution of all relevant requirements.

22.2 PLANNING OF A SPECIAL MANAGEMENT AREA

In the required EMS, the following fundamental aspects need to be addressed appropriately:

22.2.1 COMPONENTS OF A ENVIRONMENTAL MANAGEMENT SYSTEM

a) Environmental Policy

The EMS must put forward a specific environmental policy that complements existing IDP policy and addresses local environmental requirements. Such environmental policy for a specific SMA (or group of SMAs) should be consistent with, amongst others, the following principles:

- (i) Being appropriate to the nature, scale, and environmental impacts of development activities, local products, and available services. Implementation policies for a large resort complex would, for example, be different to policy for a small landholding on

which a single tourist facility (e.g. a small hotel) is located. In this regard, the criteria and purpose of the applicable SPC must be considered.

- (ii) Ensuring the commitment of all I&APs to continual prevention of all forms of environmental pollution.
- (iii) Complying with relevant environmental legislation and regulations.
- (iv) Providing a framework for determining and reviewing environmental objectives.
- (v) Being appropriately documented, implemented, maintained, and communicated by all concerned.

b) Preparing a Special Management Area Plan

Specific steps must be taken to translate the environmental policy into a working plan that incorporates, amongst others, the following:

- (i) Identifying the aspects of activities, products, and services that can impact on the environment and evaluating the significance of the potential environmental impacts²⁷.
- (ii) Determining and incorporating any legal and statutory requirements that are applicable to the relevant environment.
- (iii) Establishing and incorporating any environmental objectives put forward by, amongst others, the relevant IDP and lower sphere planning frameworks.
- (iv) Establishing and implementing an effective Environmental Management Plan.

c) Implementation and Operation

Provision must be made for the implementation of appropriate environmental management standards, including the following:

- (i) Defining roles, responsibilities and authorities to facilitate sustainable environmental management.
- (ii) Identifying training needs, and awareness and competence limitations.
- (iii) Providing effective communication channels between all I&APs.
- (iv) Ensuring effective implementation of all EMS requirements.
- (v) Providing effective control over operations.
- (vi) Ensuring appropriate project management and documentation control.
- (vii) Identifying emergency needs and providing appropriate contingency measures.

d) Monitoring and Corrective Actions

It is of fundamental importance to implement procedures for regulating operational performance and for ensuring that objectives are being achieved. This could be achieved through the following:

- (i) Monitoring and measuring all impacts of development and management actions on the environment.
- (ii) Establishing and implementing procedures for handling incidents of non-conformance with the EMS.
- (iii) Managing environmental records, including, amongst others, the results of audits and reviews and the evaluation of educational programmes.
- (iv) Undertaking periodic environmental audits in accordance with a formal auditing procedure.

²⁷ ISO 14001 defines an environmental impact as being 'any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services'.

e) **Management Review**

The EMS needs to be reviewed at set intervals to ensure its continuing appropriateness and effectiveness. Such reviewing needs to take note of the results of the environmental audits that are to be undertaken and submitted to the relevant authorities on a scheduled basis.

22.3 INSTITUTIONAL FRAMEWORK FOR ESTABLISHMENT OF SPECIAL MANAGEMENT AREAS

The planning, implementation, and management of SMAs will require that (a) appropriate institutional structures be established in all municipalities and (b) co-operative arrangements be established among institutions to facilitate the SMA process. The establishment of the required institutional structures will require the municipalities to provide for appropriate internal funding.

As stated above, it is incumbent upon government to show commitment to the promotion of IDP policy and to demonstrate, in an exemplary manner, how policy can be successfully implemented. The SMA model presents the ideal mechanism for government to practically demonstrate its leadership in this regard.

Considering the challenges facing the ODM in ensuring environmental sustainability, it is important to realise that success is a derivative of creativity, knowledge, imagination and innovation. This implies that conventional thinking will have to be challenged and public-private partnerships will have to be forged to address the challenges of the future.

The establishment of SMAs presents one such creative and innovative mechanism through which implementation of IDP policy can be regulated and managed under specific circumstances. In addition, it provides the opportunity to implement innovative environmental management ideas and concepts within controlled circumstances and without creating negative precedents.