

Executive Summary: uThungulu Coastal Management Programme

Introduction

The uThungulu coast is a vital and complex asset of the uThungulu district. Along its length of only 100km it contains significant service infrastructure, Africa's largest port (volume of cargo handled), major mining operations, large industrial operations, extensive sugar cane and timber plantations, prawn fisheries and prawn aquaculture operations, tourism businesses, wilderness/conservation areas, subsistence agriculture and natural resource harvesting, impoverished urban settlements, traditional rural settlements, and affluent urban and suburban settlements.

In order to accommodate this diverse mix of human activity, harness the coastal assets and services in an efficient and equitable manner, and ensure the sustainable development of the coast and its people, integrated planning and management is required. As a result the uThungulu District commissioned this project to develop a Coastal Management Programme for the uThungulu Coast.

Overview of the uThungulu Coast

Natural Features

Offshore from the uThungulu Coastline is the Agulhas current sweeping warm water (20 – 26°C) southwards from Mozambique. This tropical water is generally low in nutrients. This current, together with uThungulu's geographic position dictates its climate – warm, humid and generally quite wet in summer.

Inshore currents tend to flow from south to north in the opposite direction to the Agulhas. The shoreline along which these currents move is generally straight and sandy with no sheltered marine bays, prominent headlands or protective islands. The wind, currents and straightness of the shoreline sets up a high-energy environment that limits use. The inshore currents also move vast quantities of coastal sand in a northerly direction. The impact of interrupting this sand movement is apparent on the beaches north of the Richards Bay port entrance, which suffer continual "sand starvation" and erode.

There are five estuaries on the uThungulu coast: Siyaya, uMlalazi, uMhlathuze, Port of Richards Bay and Nhlabane. They vary considerably in character from permanently open (uMlalazi) to large (uMhlathuze) to a deep enclosed marine bay (Richards Bay).

Immediately inland from the shoreline are dune formations made up largely of marine sand together with a number of economically important mineral deposits.

South of the uMhlathuze River the coastal topography comprises mature undulating coastal dune systems with predominantly sandy soils. North of the uMhlathuze a broad coastal plain exists, comprising sandy soils intersected with alluvial mud and clay deposits. The almost total absence of rock formations in the coastal area is a feature.

These physical systems described above regulate the type of ecosystems we find on the uThungulu Coast. The Agulhas current provides little in the way of nutrients but the outflow and northward movement of sediment and nutrients from the Thukela River (located south of uThungulu in the Ilembe district) has created the Tugela Bank, a shallow marine ecosystem rich in prawn, shellfish and finfish life. The prawns, through their lifecycle, link the offshore environment with the inshore estuaries.

The sandy shores also have low productivity, little in the way of flora (seaweeds etc) and the fauna is confined to small invertebrates, crabs and finfish.

The estuaries vary in productivity. Richards Bay, uMhlathuze and uMlalazi contain highly productive mangrove stands and various reed species while Siyaya and Nhlabane are less productive. All the systems are seasonally rich in small invertebrate, crab, prawn and fish species.

The land-based ecosystems in the uThungulu district are, for the most part highly modified by various land-use activities. The two large lakes, Cubhu and Mzingazi, are in fairly good ecological condition. However many of the riverine systems and wetlands have been degraded or destroyed by catchment mismanagement, and agricultural and industrial activity.

Much of the land-based large fauna has been depleted but red, grey and blue duiker, together with bushbuck and bushpig occur, and vervet monkeys are abundant in coastal forests and surrounding agricultural land. Crocodiles occur in some of the estuary and river systems, and the occasional hippo occurs north of Richards Bay. Over four hundred bird species have been recorded in the district.

Economic features

Located offshore on the Tugela Bank is a small commercial prawn fishery and, as yet, unexploited mineral deposits.

The landward portion of the coast comprises a complex mix of mining, commercial forestry and agriculture, subsistence agriculture, mariculture (prawns), harbour operations, tourism, conservation, infrastructure, and industrial and residential development.

Starting in the south in the uMlalazi Local Municipality the landscape is dominated by a conservation area (the Siyaya Park), commercial forestry plantations and cane farming. Mtunzini is a well established residential town containing tourism, mariculture, conservation and recreational activities.

The uMhlathuze Local Municipality is anchored by the towns of Richards Bay and Esikhawini and the Port of Richards Bay. Linked to the port is significant industrial, commercial and infrastructure development. Agriculture in this area is primarily cane and subsistence cropping. Tourism and recreation is in a developmental phase. There are significant mining lease areas some of which are currently being exploited.

The Mbonambi Municipality in the north is dominated by mining, commercial timber and subsistence agriculture. Tourism and recreation is poorly developed.

The overall economic value of goods and services supplied by the uThungulu coast is very conservatively estimated at R 6 billion per annum.

Social Features

The population of the uThungulu Coastal Zone is 165,000 located in rural homesteads, informal settlements, formal "township" settlements and formal "upmarket" residential areas. In most areas settlements are set back from the immediate coastline.

Literacy and skills levels vary from highly literate and skilled individuals employed primarily in the mining, industrial and public sectors to a very large proportion of people who are illiterate with low skills levels.

Formal employment levels are low with a large proportion of the population either engaged in the informal economy or economically inactive.

Human health trends are reflective of the general socio-economic disparities and there is a high incidence of HIV/Aids.

High levels of cultural awareness remain and there is a particularly strong Zulu cultural tradition amongst the majority of residents.

Vision for the uThungulu Coast

The following vision for the uThungulu Coast is based on the vision of the uThungulu District expressed in the IDP and the Vision for the Coast expressed in the National White Paper for Sustainable Coastal Development:

We strive to realise the full economic potential of the uThungulu coast.

We strive to ensure the provision of effective coastal infrastructure that allows for equitable access to uThungulu's coastal resources.

We strive to facilitate the empowerment and upliftment of poor coastal communities.

We strive towards sustainable coastal development that involves a balance between material prosperity, social development, cultural values, spiritual fulfilment and ecological integrity, in the interests of all citizens of the uThungulu District.

Institutional Recommendations

The institutional recommendations from coastal management in the uThungulu District are:

- Ensure the ongoing functioning of the uThungulu Coastal Working Group. The uThungulu Coastal Working Group brings together government and non-governmental stakeholders in the coastal sector and promotes co-ordination of coastal management effort and exchange of knowledge. It also promotes stronger relationships with provincial and national coastal management stakeholders. Figure 1 shows the how the district and local coastal working groups link to national and provincial coastal management structures.
- Establish Coastal Working Groups for the three local authority areas: These local coastal working groups will allow for better co-ordination within the local municipality and an opportunity for local stakeholders to provide input into coastal management. It is recommended that the establishment of these local Coastal Working Groups be delayed until the uThungulu Coastal Working Group has been functioning effectively for a few years and the establishment of these groups will not detract from the district group.
- Formally recognise the Planning and Economic Development Department of uThungulu as the coastal management lead agent in the district.
- Formally recognise the community services department of uMlalazi as the

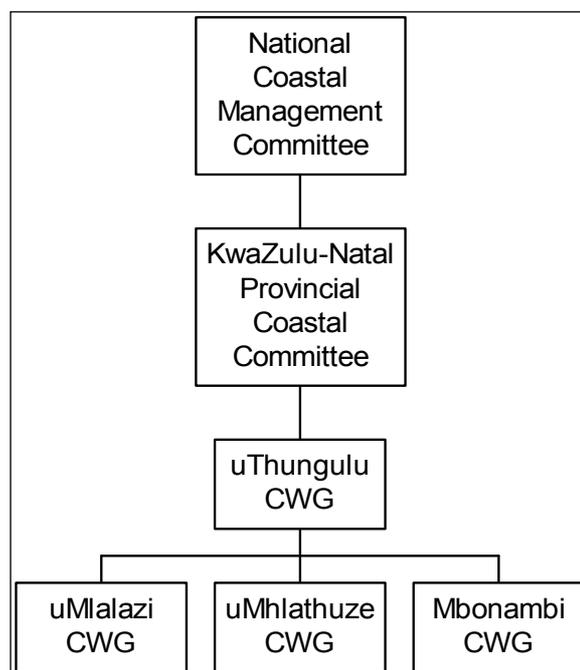


Figure 1: Relationship between proposed national, provincial, district and local coastal management structures

coastal management lead agent in the uMlalazi district.

- Formally recognise the Integrated Development Planning Department of uMhlathuze as the coastal management lead agent in the uMhlathuze Municipality. (There are a number of departments that play a role in coastal management in uMhlathuze but the broad role of the planning orientated departments lends themselves to playing a coordinating role in coastal management).
- Formally recognise the Technical Department as the coastal management lead agent in the Mbonambi Municipality.
- Include coastal co-ordination within the job description of at least one official within the departments in all four municipalities that have been allocated coastal management lead agent status.

Themes, Strategic Programmes and Projects

In order to promote the alignment of the uThungulu Coastal Management Programme with the National White Paper for Sustainable Coastal Development, the five themes of national white paper have been adopted for the uThungulu Coastal Management Programme. For each theme key strategic programmes have been identified and projects to implement the strategic programme are recommended. A summary of themes, strategic programmes and projects are presented below:

Themes	Strategic Programmes	Projects
Theme A: Governance and Capacity Building	Strategic Programme A.1: Coastal Management and Administration Services	Establish and ensure the ongoing functioning of an uThungulu District CWG
		Establish and ensure the ongoing functioning of an uMlalazi Local CWG
		Establish and ensure the ongoing functioning of an uMhlathuze Local CWG
		Establish and ensure the ongoing functioning of an Mbonambi Local CWG
		Regular Interaction with National and Provincial Coastal Authorities Identification of district and local coastal lead agents
		Promote Provision of Development Guidelines
	Strategic Programme A.2: Coastal Management Education and Training	Internal Programme of Coastal Management Training for uThungulu Coastal Working Group
		Establish Education and Awareness Sub-Committee of uThungulu Coastal Working Group
Design and Implement a uThungulu Coastal Awareness and Education Campaign		
Theme B: Our District	Strategic Programme B.1:	Achievement of blue flag status for Alkantstrand beach

Asset	Coastal Infrastructure and Access	Achievement of blue flag status for Mtunzini Beach
		Create formal beach access points
		Establish Hiking Trail from uMlalazi Estuary to Amatikulu
		Establish overnight campsite between uMlalazi Estuary and Amatikulu
		Establish short walking trails north of the uMlalazi Estuary
	Promote road access with GSLWP	
	Strategic Programme B.2: Coastal Safety and Security	To implement this strategic programme the project already described in for strategic programme B.1 to create formal beach access points with security should be taken forward.
Theme C: Coastal Planning and Development	Strategic Programme C.1: Coastal Planning	Most aspects of this are addressed through this Coastal Management Programme
		Implementation of Coastal Conservation Corridor
	Strategic Programme C.2: Coastal Economic Development	Determine feasibility of Upmarket Residential Development north of Alkantstrand.
		Establish Accommodation based tourism enterprises
	Establish Guiding Micro-enterprises	
	Strategic Programme C.3: Coastal Poverty Alleviation	Working for the Coast Programme
Theme D: Natural Resource Management	Strategic Programme D.1: Coastal Conservation and Protection	Estuary Management Plans for three estuaries
		Determine the feasibility of a Biosphere Reserve in the uMhlathuze Municipality
Theme E: Pollution Control and Waste Management	Strategic Programme E.1: Coastal Pollution Control and Waste Management	Quarterly Beach Clean Up
	Strategic Programme E.2: Coastal Disaster Management	Integrate Coastal Issues into Disaster Planning

Spatial Overview

The key recommendations of the uThungulu Coastal Programme from a spatial perspective are:

- It is proposed that certain key coastal access points are upgraded (improved access road and facilities) and protected by a secure coast-guard presence.

These points are strategically important as they will create safe access points in additional locations in the district. The intention of these points is to improve recreational use of the coastal area and to create job opportunities through the provision of safety and security services.

- It is proposed that Alkantstrand and ultimately Mtunzini Beach apply for Blue Flag status to increase the profile of recreational areas in the district
- It is proposed that a road linkage be created through Mbonambi to the Greater St Lucia Wetland Park in order to extend the tourism benefits of the park into the Mbonambi area.
- It is proposed that guiding enterprises be established in five possible locations in the district to create micro-enterprise opportunities for local coastal stakeholders
- It is proposed that tourism developments be pursued at a number of places in the district including Siyaya Park, Etunzi, Lake Nhlabane and Mtiyane's Camp.

The key development nodes of the uThungulu Coast are:

- Development Node 1 - The Banks: The Banks development node is located in the southern portion of the uThungulu Coast, midway between the uMlalazi Estuary and the Amatikulu Estuary (in the Ilembe District). The ultimate vision for this node is that it will provide a safe drive-in access point to the coast for local stakeholders in the area with safety of access secured by the presence of coast-guards. In addition it is planned that the node will serve as a half-way point, with camping accommodation, for a hiking trail between the Amatikulu Nature Reserve in the south and the uMlalazi Nature Reserve in the north.
- Development Node 2 – Mtunzini: The Mtunzini development node is the northern portion of the Siyaya Park located south of the uMlalazi Nature Reserve. The ultimate vision for this node is to establish more tourism accommodation and increase levels of recreation and tourism use of the park in general. It is planned that new development zones will be created in the park ranging from low intensity development to high intensity development sites.
- Development Node 3 – Etunzi: The Etunzi development node is located immediately north of the uMlalazi Estuary. The ultimate vision for this node is that there is a substantial private sector tourism development that provides a variety of tourism opportunities to visitors to the district.
- Development Node 4 - Alkantstrand northwards: The Alkantstrand northwards development node is located north of the Richards Bay Harbour and focuses on the narrow beach strip of this area. The ultimate vision for this coastal node is increased recreational use of the beach in the area and ultimately residential development in the coastal dune development nodes. This will involve the achievement of Blue Flag status for Alkantstrand Beach.

- Development Node 5 - Lake Nhlabane: The Lake Nhlabane development node is located in the Mbonambi Municipality in the northern area of the district. The ultimate vision for this node is that it will be a tourism node that provides facilities for overnight visitors and day visitors from Richards Bay.
- Development Node 6 - Mtiyane's Camp: The Mtiyane's Camp development node is located in the far north of the district. The ultimate vision for this node is that it will form the site of a coastal resort development adjacent to the coast.

Finally it is proposed that there a Coastal Conservation Corridor be implemented with three zones:

- Admiralty Reserve zone: Immediately adjacent to the sea and intended to protect this sensitive area from development
- Coastal Buffer zone: landward side of the admiralty corridor and intended to limit development near the coast
- Inland Protection zone: More inland areas that are important for the support of biodiversity in the district and to protect freshwater resources in the district. Intend to prevent inappropriate development.