RAPID ASSESSMENT OF THE DEVELOPMENT PLANS, BIODIVERSITY CONSERVATION PROJECTS AND SOCIO-ECONOMIC SITUATION OF THE NAMIB COASTAL REGIONS

NAMIB COAST BIODIVERSITY CONSERVATION AND MANAGEMENT (NACOMA) PROJECT: PREPARATION PHASE





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ACRONYMS

| BCLME | Benguela Current Large Marine Ecosystem | |
|--|---|--|
| BENEFIT Benguela Environment Fisheries Interaction and Training Prog | | |
| CBD | Convention of Biological Diversity | |
| CBNRM Community-Based Natural Resources Management | | |
| СВО | Community-Based Organisation | |
| CBT Community-Based Tourism | | |
| DLIST Distance Learning and Information Sharing Tool | | |
| DRFN Desert Research Foundation of Namibia | | |
| DTEC Department of Tourism, Environment and Conservation | | |
| EIA | Environmental Impact Assessment | |
| EMP | Environmental Management Plan | |
| EMS | Environmental Management System | |
| GIS | Geographic Information System | |
| GTRC | Gobabeb Training and Research Centre | |
| HDI | Human Development Index | |
| ICD | Integrated Conservation and Development | |
| ICEMA Integrated Community-Based Ecosystem Management | | |
| ICZM Integrated Coastal Zone Management | | |
| ICZMC Integrated Coastal Zone Management Committee | | |
| IDP Integrated Development Plan | | |
| IUCN | International Union for the Conservation of Nature | |
| LA Local Agenda | | |
| MAWRD | Ministry of Agriculture, Water and Rural Development | |
| MET | Ministry of Environment and Tourism | |
| MFMR | Ministry of Fisheries and Marine Resources | |
| MLRR | Ministry of Lands, Resettlement and Rehabilitation | |
| MME | Ministry of Mines and Energy | |
| MPA | Marine Protected Area | |
| MRLGH | Ministry of Regional and Local Government and Housing | |
| NACOBTA | Namibian Community Based Tourism Association | |
| NACOMA | Namib Coast Biodiversity Conservation and Management | |
| NALIS Namibia Land Information System | | |
| NaLTER | LTER Namibian Long-term Ecological Research | |
| NAMPORT | Namibian Ports Authority | |
| NatMIRC | National Marine Information and Research Centre | |
| NBRI | National Botanical Research Institute | |
| NBSAP | National Biodiversity Strategy and Action Plan | |
| NDP | National Development Plan | |

| NGO | Non | Governmental | Organisation |
|-----|-----|--------------|--------------|
|-----|-----|--------------|--------------|

- **NTB** National Tourism Board
- NTDP Namibia Tourism Development Programme
- NWR Namibia Wildlife Resorts
- NWTIP North West Tourism Implementation Plan
- NWTMP North West Tourism Master Plan
- NWTOP North West Tourism Option Plan
- **NWTP** North West Tourism Plan
- **ORMIMC** Orange River Mouth Interim Management Committee
 - PMU Project Management Unit
 - PTO Permission to Occupy
 - **RDP** Regional Development Plan
 - SKEP Succulent Karoo Ecosystem Plan
 - TFCA Transfrontier Conservation Area
 - ToR Terms of Reference
 - UNAM University of Namibia
 - UNDP United Nations Development Programme
 - WPC World Parks Congress

1. INTRODUCTION

The Namib Coast Biodiversity Conservation and Management (NACOMA) Project aims to support sustainable coastal zone management by 1) developing a coastal policy and legislative framework, 2) building institutional and technical capacity of Regional Councils and 3) supporting targeted investments for biodiversity conservation in critical ecosystems. Underpinned by the principle of balancing biodiversity conservation and local economic development, these three project components require an understanding of the natural resources of the coastal areas as well as of the socio-economic situation of the coastal regions of Kunene, Erongo, Hardap and Karas. Based on a comprehensive literature review¹, interviews and discussions with key players², and input from key stakeholders through the NACOMA Preparation Workshop held in Swakopmund in August 2004³, this report provides an overview of ongoing and planned developments as well as biodiversity conservation initiatives in the four coastal regions of Namibia to inform the NACOMA Project Brief. Two other reports provide input for the Project Brief: "Review of Policy and Legislation Pertaining to Coastal Zone Management" and "Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process – Recommendations for Institutional Strengthening and Capacity Building". The three reports have been prepared in close collaboration, and thus support and complement each other.

This report starts by describing the coastal setting (Section 2). The plans and projects that target biodiversity (Section 3) as well as the regional development framework and key development plans in each of the four coastal regions (Section 4) are presented. The latter two sections provide a situational analysis but also identify the relevance of environmental and development plans to the NACOMA Project. Based on this situational analysis, the report considers the potential socio-economic impacts from current and expected developments in the current biodiversity conservation framework to identify threats to biodiversity in the coastal areas and root causes (Section 5). Throughout sections 3 to 5 the relevance of the findings presented to the NACOMA Project is briefly analysed and in the final section translated into concrete recommendations. Section 6 of this report presents recommendations for the NACOMA Project in terms of its overall aims listed in the above paragraph and in the form of a logframe with activities and indicators. These recommendations can assist in defining the mechanisms and targets for NACOMA support to coastal biodiversity conservation, as well as provide input into the processes for policy development, institutional capacity building, and targeted investment in coastal areas. It can also be useful in the development of coastal profiles for Kunene, Hardap and Karas Regions and in the re-organisation of the Erongo Region coastal profile.

2. THE COASTAL SETTING

2.1. Physical setting

The 1,572 km long coastline of Namibia is an arid area characterised by low rainfall and limited freshwater resources that falls within the desert biome. Four different major vegetation types occur in these coastal areas, namely the Northern, Central and Southern Namib, and the Desert and Succulent Steppe⁴. With a high level of biological specialisation and endemism, the Namib Desert is one of the

¹ A list of documents used for this report is provided in the References section, drawn from a more comprehensive list of documents used during the NACOMA preparation phase.

² A list of key parties consulted is presented in Annex I.

³ Mufeti, T., F. Odendaal, R. Garcia, J. Oranje and I.Kauvee, 2004. *NACOMA Preparation Workshop – Workshop Proceedings*. Swakopmund, 11-13 August 2004.

⁴ O'Toole, M.J., 1997. *Marine Environmental threats in Namibia*. Research Discussion Paper, 23. Windhoek: DEA Publications Department, Ministry of Environment and Tourism, pp 1-48.

oldest in the world and is listed by the International Union for the Conservation of Nature (IUCN) as a habitat type that may have potential for World Heritage nomination⁵. In contrast to this arid terrestrial environment, the Benguela Current Large Marine Ecosystem (BCLME) off the Namibian coast has one of the highest primary production rates in the world and is one of the most important renewable natural resources of the country. Shared with Angola and South Africa, the BCLME supports vast populations of commercially exploitable fish species and the inshore marine environment provides migration and nursery habitats for numerous marine organisms.

The coastal areas fall within a series of contiguous protected and recreational areas, namely the Skeleton Coast National Park, the National West Coast Recreation Area, the Namib-Naukluft National Park and the recently proposed Sperrgebiet National Park, formerly a mining concession completely off-limits to the public and accessible to only a few scientists (Figure 1). The only portion of the coast with no protection status is the areas of Walvis Bay and Swakopmund municipalities in the Erongo Region, between Mile 14 north of Swakopmund and the Kuiseb River south of Walvis Bay. The coastline of Namibia is, in fact, part of a continuum of protected areas that stretches from Southern Angola into Namaqualand in South Africa. Several wetlands provide important feeding grounds to a large number of migratory wading and seabirds, such as the Kunene River Mouth, Cape Cross Lagoons, Mile 4 Saltworks, Walvis Bay Wetlands, Sandwich Harbour, Lüderitz Lagoon and the Orange River Mouth, and important coastal seabird breeding islands include Mercury, Ichaboe and Possession Island.



Figure 1 Coastal Regions, Protected Areas and some Conservancies along the coastline of Namibia

Source: EcoAfrica Environmental Consultants

⁵ IUCN, 2004. *The World Heritage List: future priorities for a credible and complete list of natural and mixed sites*. A Strategy Paper prepared by IUCN. April 2004, pp 1-19.

Most of the coastline has offered limited access to the public due to conservation and economic activities such as tourism and mining concessions. As a result of limited access through the years, the coastal zone of Namibia is still relatively pristine. Approximately 75% of the coastline can be considered pristine with limited human impact according to the project document for the Integrated Coastal Zone Management of the Erongo Region⁶. Section 3 of the current report provides more details on the coastal biodiversity values.

2.2. Administrative and legal setting

This section briefly describes the administrative setting in the coastal areas and the legal framework for biodiversity conservation. The Report on "Review of Policy and Legislation Pertaining to Coastal Zone Management" provides a detailed analysis of the legal and policy context for coastal management and biodiversity conservation. Four regions in Namibia extend to the coast: Kunene, Erongo, Hardap and Karas (see Figure 1). Each region has its own regional governing body, the Regional Councils, and is guided by a Regional Development Plan (RDP)⁷. Most of these coastal areas have been set aside for conservation and economic development activities such as tourism or for mining and therefore the Ministry of Environment and Tourism (MET) and the Ministry of Mines and Energy (MME) are key administrative bodies on land, while the Ministry of Fisheries and Marine Resources (MFMR) is the main administrative body on the sea. There is currently lack of clarity on the jurisdictional areas and mandates of these three bodies in relation to one another.

The coastal zone's biodiversity is protected by an evolving legal framework that acknowledges the need for protection and sustainable use of coastal natural resources. Namibia's 1990 Constitution⁸ makes explicit reference to biodiversity by providing that the State shall adopt policies aimed at the *'maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future (...)' (Article 95:1). Ownership of natural resources in or under the sea or land is vested in the State unless these are otherwise lawfully owned (Article 100). Acknowledging the importance of the country's biodiversity, Namibia signed the Convention on Biological Diversity (CBD) on 12 June 1992 and ratified it on 18 March 1997⁹.*

Most of the coastal areas have legal protection status under the Nature Conservation Ordinance, except the area surrounding Walvis Bay and Swakopmund. The policy of MET on terrestrial and freshwater ecosystems aims to "ensure adequate protection of all species and subspecies, of ecosystems and of natural life support processes"¹⁰ and a new Parks and Wildlife Bill¹¹ is being drafted. The Namibian marine environment falls under jurisdiction of the MFMR. There are no marine reserves declared under the Marine Resources Act¹², despite the urgent need for increased protection of important wetlands and

⁶ Ministry of Environment and Tourism, undated b. *Project document for integrated coastal zone management for the Erongo region*. Ministry of Environment and Energy, pp 1-65.

⁷ Please see Section 4.2.

⁸ Government of the Republic of Namibia, 1990. *The Constitution of Namibia*. Out of Africa Publishers, pp 1-90.

⁹ See Ministry of Environment and Tourism, 2002a. *National Report to the Conference of the Parties on the Implementation of the Convention on Biological Diversity in Namibia*. April 2002 and Barnard, P. and T. Shikongo, 2000. *Namibia's National Report to the Fifth Conference of Parties on Implementation of the Convention on Biological Diversity*. Namibian National Biodiversity Programme, Directorate of Environmental Affairs, Ministry of Environment and Tourism.

¹⁰ Ministry of Environment and Tourism, 1994. *Conservation of biotic diversity and habitat protection*. Policy document, Ministry of Environment and Tourism, pp 1-3.

¹¹ Ministry of Environment and Tourism, 2002. *The Parks and Wildlife Management Bill* – Draft for discussion purposes only. June 2002.

¹² Ministry of Fisheries and Marine Resources, 2000. Marine Resources Act (27 of 2000).

islands. The areas of Sandwich Harbour (extending 1.6 km seaward of the low water mark), the Walvis Bay Lagoon and nearshore islands in Namibian waters had the status of protected areas or reserves before independence. There is thus imbalance between the portions of Namibian terrestrial and marine environments that are protected.

2.3. Biodiversity setting

The main biodiversity hotspots in the coastal areas of Namibia are illustrated in Figure 2. For the purpose of this report, broader areas with biodiversity interest will be considered, as listed in Table 1.



Figure 2 Existing and proposed protected areas along the coastal areas of Namibia

Source: Map compiled in ArcView by M. Thurland using data from the MET/DEA Resource Centre website

| Biodiversity hotspot | Biodiversity values / priority | Protection status | Administrative / legal bodies |
|---|---|--|---|
| Kunene River Mouth | Remarkably high richness of avian species, including Damara Tern | No legal protection, but part of the future Iona/Skeleton Coast Transfrontier Park | MET |
| Skeleton Coast National Park | Uniquely adapted plants and animals and unique wilderness area | National Park; MoU signed with Government of Angola to create the Skeleton Coast/Iona Transfrontier Park | MET |
| Conservancies adjacent to the Skeleton Coast National Park | Considered by MET important in terms of biodiversity conservation Containing some important species, desert populations of large game | Communal conservancies under the Nature Conservation Ordinance Amendment Act (5 of 1996) | Community organisations, NGOs, CBOs |
| National West Coast Tourist Recreation Area | Considered a priority in terms of conservation by MET | Tourist Recreation Area with lower protection status than national park; proclamation as protected area planned | MET |
| Walvis Bay Wetland | Rich estuarine fauna Supports about 129,000 birds Hosts Palaearctic and intra-African migrant birds Hosts six rare bird species Most important wetland bird habitat on Namib Coast One of ten most important wetlands in Africa Considered a priority in terms of conservation by MET | No protection status; Ramsar Site; re-declaration of the Walvis Bay Nature Reserve proposed | Walvis Bay Municipality, MLRR, NAMPORT |
| Cape Cross Seal Reserve | Largest land-based seal breeding colony in the world 19% of annual pup production of species | Nature Reserve | Access controlled by MET but utilisation of resources controlled by MFMR. |
| Walvis Bay / Swakopmund dunes | Host specially adapted desert organisms Not important habitat for conservation – large areas conserved in Namib Naukluft Park | No protection status; management plan in place | Municipalities |
| Namib Naukluft National Park | Suite of uniquely adapted organisms, with low species density yet high endemism | National Park | MET |
| Sandwich Harbour | Supports 8 Namibian Red Data Book bird species including the Damara Tern High densities of water birds | Falls in National Park; Ramsar Site | MFMR and MET; MET powerless to enforce protection of 1.6 km extension into sea. |

 Table 1
 Key biodiversity areas along the coastal regions of Namibia

| Biodiversity hotspot | Biodiversity values / priority | Protection status | Administrative / legal bodies |
|-----------------------------|---|-----------------------------------|-------------------------------|
| Lüderitz Lagoon | Visited regularly by wetland birds | No protection | Municipality of Lüderitz |
| | Sites in the vicinity provide suitable habitat for shorebirds | | |
| Sperrgebiet | An epicentre of biodiversity in the Succulent Karoo biome | To be proclaimed National | MET |
| | Key for protection of the Succulent Karoo because it has | Park, including 3 nautical miles | |
| | enjoyed <i>de facto</i> selective protection | into the sea | |
| Islands (north and | Excellent breeding habitat for a large number of seabirds | No protection; lost marine | MFMR |
| south of Lüderitz) | | reserves status upon Namibia's | |
| | | independence; access to the | |
| | | islands still controlled | |
| Orange River | • One of the top 6 most important wetlands in Southern Africa in | No protection status; Ramsar | MET and Department of |
| Mouth | terms of water bird usage | site, but added to the Montreux | Tourism, Environment and |
| | Breeding ground or migration stopover point | Record in 1995; plans in | Conservation (DTEC), the |
| | Supports 15 Red Data Book bird species | progress to become a provincial | Orange River Mouth Interim |
| | Flora demonstrates high rates of diversity and endemism | park | Management Committee |
| | | - | (ORMIMC) and a Technical |
| | | | Committee on the South |
| | | | African side |

2.4. Socio-economic setting

The Namib remains as one of the least populated regions in the world¹³. This is the result of the Namib's physical features, which make it largely unsuitable for agriculture and human settlement, but also of forced relocation of people in selected areas and planning policies – the coastal areas have been mostly been reserved for conservation, mining and tourism activities. In early 1999 the coastal population was estimated to be around 100,000 people (or roughly 6.5% of the national population), although this is likely to be considerably higher in the peak holiday season¹⁴. Human settlement along the Namibian coast is confined to five principal nodes: Henties Bay, Swakopmund, Walvis Bay, Lüderitz and Oranjemund, but urbanisation as well as the growth of informal settlements have been increasing recently. Table 2 shows that the Kunene Region has the lowest per capita income as a region and the lowest Human Development Index (HDI). In the Hardap Region no people live along the coast, and in Kunene there is a small human pressure related to nature conservation and tourism management.

| | Kunene | Erongo | Hardap | Karas | Namibia |
|---|---------|---------|---------|---------|-----------|
| Land area (km ²) | 115 293 | 63 579 | 109 651 | 161 215 | 824 269 |
| Population | 68 735 | 107 663 | 68 249 | 69 329 | 1 830 330 |
| Population growth rate 2001-2006 ¹⁵ | -0.26 | 5.39 | -1.33 | 0.95 | 1.74 |
| Population density (pers/km ²) ¹⁶ | 0.6 | 1.7 | 0.6 | 0.4 | 2.1 |
| Human Development Index (HDI) ¹⁷ | 0.588 | 0.713 | 0.667 | 0.700 | 0.648 |
| Income (N\$) ¹⁸ | 2 203 | 5 423 | 5 945 | 6 655 | 3 608 |

 Table 2
 Socio-economic indicators for the four coastal regions

The major economic activities in Namibia's coastal areas are largely confined to the fishing, mining and tourism sectors, but participation of people in the economy still has typical colonial overtones, with a small percentage of the population controlling economic activities in coastal areas. Mining is by far the most important productive sector of the Namibian economy and has historically provided the primary stimulus for infra-structural development and growth in the country. Offshore concessions extend for the full length of the Namibian coastline while onshore licenses extend 3 km offshore¹⁹. The marine fisheries sector, supported by two fishing harbours in Walvis Bay and Lüderitz, is an important foreign exchange earner and significant employment generator for Namibia. The tourism industry is based on the country's parks and nature reserves, yet it is growing in communal and private lands.

¹³ McGann, J., F. Odendaal and L. Nakanuku, 2001. *Report on the integrated coastal zone workshop held in Swakopmund*, Namibia May 10-11, 2001, pp 1-59.

¹⁴ Tapscott, C., 1999. An overview of the socio-economics of some key maritime industries in the Benguela Current region. A Report Prepared on Behalf of the Benguela Current Large Marine Ecosystem Project, Windhoek, October 1999. Extracts in DLIST Course material "The Socio-economic landscape", <u>www.dlist.org</u>.

¹⁵ Government of the Republic of Namibia, undated a. *Second National Development Plan (NDP2) 2001/2002 – 2005-2006: volume 1 macroeconomics, sectoral and cross sectoral policies.* Windhoek, National Planning Commission. Chapters 23-47.

¹⁶ National Planning Commission, 2001. 2001 Population and Housing Census.

¹⁷ UNDP, 2001. Namibia Human Development Report 2000/2001.

¹⁸ Government of the Republic of Namibia, undated b. *Second National Development Plan (NDP2) 2001/2002 – 2005-2006.* Windhoek, National Planning Commission.

¹⁹ Tapscott, C., 1999. An overview of the socio-economics of some key maritime industries in the Benguela Current region. A Report Prepared on Behalf of the Benguela Current Large Marine Ecosystem Project, Windhoek, October 1999. Extracts in DLIST Course material "The Socio-economic landscape", <u>www.dlist.org</u>.

2.4.1. The Four Coastal Regions

The *Kunene Region* is named after the Kunene River, which borders the north-western part of the region. The region's economy is largely driven by agriculture and to a lesser extent, tourism and manufacturing. Mining, particularly small-scale mining, has only limited potential for local economic development in the region. Mineral deposits include tantalite, alluvial gold, sodalite, marble, limestone, copper, lead, zinc, vanadium, iron, nickel, cobalt and fluorspa – however in varying degrees of commercial viability. Conversely, the thriving tourism sector provides considerable positive spin-offs in terms of employment opportunities and local economic development. The Etosha National Game Park and the Skeleton Coast Park provide distinct comparative advantages to the region. The region is marked by poor road and railway infrastructure. The rural areas are marked by few formal growth points or development centres, limiting employment opportunities, and lack of security of tenure, limiting private sector involvement. The Himba or Ovahimba indigenous population is regarded as one of Namibia's marginalised groups.

The entire coast is part of the Skeleton Coast Park that stretches from the Kunene to the Ugab River. The eastern border of this long, thin coastal park is flanked by nine community conservancies which is in turn are bordered by more conservancies inland. The Kunene Region's coastal areas are considered to have brought little benefit to the region's people. The perception at the Regional Council and communities is that they have been cut off their coast through conservation planning that hails from a bygone area.

The *Erongo Region*, with a strong, though seasonal tourism industry and a major harbour that is also Namibia's largest one, is the only region that is experiencing economic growth in the coastal regions and consequently has the highest HDI (Table 1). The regional economy is propelled by fishing, mining, agriculture and tourism. 63% of the population in the region are urbanised. Walvis Bay is one of the main centres for industrial development on the coast of Namibia, whereas Swakopmund and, to a lesser extent, Henties Bay are major tourism centres. There is a wide diversity of living situations and standards of living. The Topnaar Nama living mostly along the Kuiseb River are considered marginalised. Previous mining areas and towns where mining is downscaling, such as Arandis, are experiencing negative economic growth with few if any livelihood options remaining.

Among the coastal regions, the Erongo Region currently occupies the largest tourism base²⁰. The Cape Cross Seal and the Namib Naukluft Park are only some distinct conservancy coastal areas in a region with approximately 31% of its area covered by nature parks and recreational areas. Tourism is growing, but the resources are presently exploited by only a small section of the business community limiting the benefits the wider community of Erongo could accrue from the sector. Fishing, which is a significant employment provider, is being complemented by the recent surge of mariculture operations along the coast. The Port of Walvis Bay is an economic hub that facilitates large volumes of trade import and export products (mainly industrial), yet it is situated in highly fragile environments incorporating important wetlands, coastal deserts and rock lobster fishing grounds. Mining remains a significant foreign exchange earner. The region's manufacturing base – providing for fish processing, small-scale mining, alcoholic beverages, among other products – is relatively well-established.

The *Hardap Region* is named after the Hardap Dam, which provides for Namibia's largest irrigation scheme, crop production and water for human consumption. Agriculture, particularly small-stock and ostrich farming, is the major economic activity in the region. Within the region, fishing is confined to fresh water. The region boasts a well-developed infrastructure base and tourism is a rising economic activity. The Hardap Region includes two spectacular deserts, the Namib Desert in the West and the Kalahari Desert in the East. The tourism route from South Africa to the rest of Namibia runs through the

²⁰ According to accommodation statistics for 2001 (MET), regions with the highest occupancy rates were Khomas (54%), the coast – Walvis Bay and Swakopmund – (57%), Etosha (95%) and Karas 53%).

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Hardap Region, rendering it ideally situated for tourism. Its strategic location serves as a gateway to the internationally renowned scenic scenes, such as the Namib Naukluft Park, Sossusvlei and Sesriem. The coastal areas comprise some of the harshest parts of the Namib Desert, namely the red dune sea that consists of shifting sands running straight into the sea. Having no significant rocky shore, lacking fresh water, and possessing no infrastructure, this coastal area's greatest value lies in its wilderness. The Hardap Region's coastal areas have brought little or no income to the region, often leading to expressions of frustration by leaders compelled to find new livelihoods for a region where income from agriculture lies in the hands of a small part of the population. Even the tourism industry blossoming along the eastern edge of the Namib's dune sea brings little benefit to the region and employs scarcely a handful of local people²¹.

The *Karas Region* is named after the distinctive Karas Mountains. The region is diverse in terms of economic activities, consisting of mining, agriculture, fisheries and tourism, but the economy is largely primary sector-propelled. The dualistic agriculture sector provides for communal farming (occupying about 48% of total agriculture land) and commercial farming. One of the main tourist destinations in the Karas region is the Fish River Canyon, the second largest canyon in Africa and tourism is thriving in the region. The restricted diamond mining area of the Sperrgebiet has acted as a barrier between the Karas people and their coast. The Sperrgebiet contains the bulk of Namibia's share of the Succulent Karoo, making it part of the richest desert in the world in terms of biological diversity. It also contains important wetlands and along the coast rock lobster fishing grounds and a string of islands that are unparalleled as breeding sites for sea birds. The fishing sector is a major employment provider, and mariculture farming activities are emerging along the Lüderitz coastline²². Lüderitz is an important fishing port and one of the main centres for industrial development on the coast of Namibia. Mining, which is a major foreign exchange earner, is dominated by diamond mining (both on and off-shore) at Oranjemund and Lüderitz in the Sperrgebiet. Other minerals deposits are mined inland at Rosh Pinah and Haib, close to Noordoewer.

The Karas Region is experiencing the effect of the downscaling of mining in the diamond mining industry based along the coast, an effect that will be worsening with increased downscaling over the next decades. While the potential of mariculture is often touted as a remedy for the region's economic woes, fluctuating trends in the fishing industry remains an underlying concern. Lured by potential work in the fishing industry and Orange River-based agriculture, people from all over Namibia have migrated to the South only to be stranded in growing informal settlements. Although it has a comparatively high HDI (see Table 1), the general perception is that the mining and agricultural sectors have enriched relatively few people whole poverty is rampant in the rural and communal areas.

2.5. Key role players

This section provides an overview of the key role players in the coastal areas. More detailed information about responsibilities for environmental management and biodiversity conservation in Namibia can be found in the report "Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process – Recommendations for Institutional Strengthening and Capacity Building".

The *Regional Councils* are the bodies responsible for development planning at the regional level. A number of *government line ministries* have responsibilities in the coastal areas. They include the Ministry of Environment and Tourism (MET), the Ministry of Fisheries and Marine Resources

²¹ Regional Council of Hardap and Hardap Tourism Board, 2003. *Hardap Region Tourism Development Plan 2003*. Mariental, pp 1-110.

²² Mariculture fishing operations, of which two are currently established in Lüderitz, are increasingly encouraged by the Ministry of Fisheries and Marine Resources to divert from traditional fishing activities.

(MFMR), the Ministry of Mines and Energy (MME), and the Ministry of Regional and Local Government and Housing (MRLGH). Even though several ministries have regional offices, responsibilities in environmental issues are still much centralised. Parastatals like the Namibia Tourism Board (NTB) and Namibia Wildlife Resorts (NWR) assist MET. The Namibian Ports Authority (NAMPORT) was established in 1994 to undertake the management and control of ports and lighthouses in Namibia and the provision of facilities and services related hereto.

In the *private sector*, mining, fishing, shipping, and tourism industries have a strong presence along the coast. NAMDEB, the largest diamond mining company in Namibia, is a joint venture of De Beers and the Namibian government that controls the majority of mining activities along the coast. The fishing industry is the most important industrial activity in Walvis Bay, where there are more than 100 companies active in the sector, onshore and offshore. In the tourism sector, the Namibia Tourism Development Programme (NTDP) supports the diversification of Namibia's tourism economy and increased employment opportunities and the Namibian Community Based Tourism Association (NACOBTA) supports communities in their efforts to develop tourism enterprises in Namibia.

Training and research institutions include the University of Namibia (UNAM), the Polytechnic of Namibia, the Gobabeb Training and Research Centre (GTRC), previously known as the Desert Ecological Research Unit, and the Desert Research Foundation of Namibia (DRFN). Attempts at ecosystem monitoring include the Namibian Long-term Ecological Research (NaLTER) programme, while the National Botanical Research Institute (NBRI) and the National Museum of Namibia have also been involved in inventory of species in the country.²³ A number of *Non Governmental Organisations (NGOs) and Community Based Organisations (CBOs)* play an important role in facilitating community-based natural resources management (CBNRM) around the country but thus far there has been little activity from that quarter focused on the coastal areas.

The Namib and the Benguela Current Large Marine Ecosystem (BCLME) are shared by three nations and *international cooperation* can thus not be overlooked. The BCLME Programme and the emerging Transfrontier Conservation Area (TFCA) provide frameworks for possible collaboration. Specific sites of importance in the international context are the Orange and Kunene River Mouths, the Greater !Gariep TFCA in the south that includes the coastal areas and runs inland, along the border with South Africa and the Skeleton Coast/Iona Transfrontier Park in the north, straddling the border with Angola.

While the full range of stakeholders normally present in coastal areas anywhere else in the world also exists in Namibia, a closer and to the point examination of the stakeholders is necessary in terms of how decision making power pertaining to the use of coastal areas is distributed amongst them. After all, coastal management and integrated development planning to a large extent are political processes that involve a number of key actors and interest groups in addition to government²⁴. These different coastal stakeholders and groups have different perspectives on coastal management integrated development planning. Moreover, as is the case with virtually all other countries in Africa, Namibia has a strong colonial legacy that persists to this day. To deny this will simply be unreasonable and will help nothing and no one, least of all the case for conservation. Decision making powers in terms of natural resource use have resided in the hands of few, and it is not surprising that access to resources, including land has favoured a small sector of society. With respect to conservation little or no consultation took place with the broader population.

While Independence brought a redistribution of political power, much of the inequality and skewed access continues to persist, in varying degrees and for various reasons. Even when there is ample

²³ Ministry of Environment and Tourism, 2002a. *National Report to the Conference of the Parties on the Implementation of the Convention on Biological Diversity in Namibia*. April 2002.

²⁴ Beatley, T., D. Brower and A. Schwab. 1994. *An Introduction to Coastal Zone Management*. Washington, D.C: Island Press.

political will and eagerness on behalf of all parties to hasten reform and transformation, it remains a daunting task to normalise society after decades of colonialism and inequity. Much has been accomplished in terms of redistributing fishing quotes although the process is by no means over. Less has been done in terms of mining rights – while the big mines operate much like they have done in pre-Independence times, small-mining has expanded greatly although with much less benefit to the historically disadvantaged than had been hoped previously.

Frustrated by the slow pace of transformation in terms of natural resource use, the writers of this report often heard statements and were asked questions such as:

"The big miners have always been allowed to mine in the Sperrgebiet and they left a proper mess, so why can we not be allowed in to get our share, even now that the big stones have already been taken?"

In relation to the Sperrgebiet:

"Now that mining is downscaling and security concerns are becoming less, why can we not open up the Sperrgebiet for other uses such as grazing?"

"We have not even seen our coast so how do we know we cannot use it for things other than conservation that does not benefit anyone in our region anyway?"

"Water is a problem in our region so we should develop Orange River agriculture like they did in South Africa, and use all the arable land along the river."

"The sea does not want the water (of the Orange River flowing to the Ramsar Site), so why do we not use it here where we have it for irrigation?"

In relation to Cape Cross:

"We should kill the seals for their skins and make bone meal for animal feed"

In relation to the Namib Naukluft Park:

"Our people do not benefit from tourism anyway so why can we not go and explore the coast for other options?"

"Why are the same people getting concessions to enter protected areas while we once again have to stand at the end of the line?"

In relation to the Skeleton Coast Park:

"This park should be re-zoned, we were never consulted and our people cannot get to the coast."

"Our coast is of no use to anyone, we should develop it by building a harbour at Cape Fria"

"These are old borders from Apartheid times, why do we not scrap them and incorporate the coast into our region so we can use it to relieve the poverty of our people?"

While the imperative to redistribute resources and undo certain old patterns of resource use in this new post-colonial era, and the emotions associated with this imperative are easy to understand, the danger exists that *ad hoc* decisions made outside a comprehensive and well consulted policy framework can do irreparable damage to Namibia's natural resources in ways that can parallel the excesses of the past. Rather than favour one over the other, all coastal stakeholders should realize that conservation and development must be reconciled to get the most of Namibia's coastal areas. Globally there is a strong shift occurring toward conservation for the benefit of people, and this was amply illustrated at the most recent World Park Congress (WPC) held in 2003 in Durban with the suitable theme of "Benefits Beyond Boundaries". Namibia already has made progress in this regard on which more can be built. The political power balance has been corrected; what is now necessary is for careful planning and pervasive institutional and capacity building to take place to ensure that the best options will be arrived at for the coastal areas so that all Namibians can benefit from them into perpetuity.

Conclusions

- 1. The Namibian coastal areas are rich in terms of biodiversity. While considerable advances have been made over the years in terms of its conservation, many critical gaps still exist particularly outside national parks. However, even inside national parks destructive activities such as mining continue.
- 2. The major economic activities along the Namibian coastal areas are mining, fishing and tourism. Access and use of the rich natural resources in the coastal areas of Namibia have for historical reasons not been equitable. While restricted access has in many cases ensured the conservation of the coastal areas' biological diversity, the benefits from conservation and also economic activities along the coast have reached a small section of society only. The "opening up" of coastal areas previously off-limits due to diamond mining security and increased industrial activity in other areas means that development and conservation must be reconciled rapidly.
- 3. The Namib coastal areas form part of an unfolding "Big Picture" that is unparalleled anywhere else in the world in terms of protecting arid coast biodiversity. This "Big Picture" can however become reality only when local and regional governance will be harmonised with conservation plans through an Integrated Conservation and Development (ICD) approach that will be reflected in participative planning and increased livelihood creation that is linked to biodiversity conservation.

3. **BIODIVERSITY CONSERVATION**

3.1. National framework for biodiversity conservation

3.1.1. National vision

[•]*Biodiversity and Development in Namibia*[•] or Namibia's Biodiversity Strategy and Action Plan (NBSAP)²⁵, is Namibia's ten-year strategic plan of action for biodiversity conservation. An intersectoral plan coordinated by MET, it provides guidance for the implementation of article 95:1 of the Namibian Constitution and the Convention on Biological Diversity (CBD). Preparation of the strategy involved a cross-section of stakeholders and drew on technical input from the National Biodiversity Task Force, coordinated by MET. The plan reflects the views of MET, MFMR and other stakeholders, the Regional Councils having been involved through the ICZMC²⁶. However, Namibia's National Report to the Fifth Conference of Parties on Implementation of CBD²⁷ remarked that despite consultation of Government ministries, NGOs, parastatals, unions, private sector companies, grassroots organisations and interested persons, the dialogue for the NBSAP centred in Windhoek and the largest contribution was from technical specialists. Nevertheless, the NBSAP outlines the country's priorities in terms of biodiversity conservation and therefore NACOMA should build on it and support activities that converge with NACOMA's objectives.

The Biodiversity Task Force has reached the end of its mandate, but a follow up programme is planned that will merge the two programmes that created the Task Force, namely the Biodiversity Programme and the Desertification Programme. This new programme will focus on the use of natural resources and

²⁵ Ministry of Environment and Tourism, undated a. *Biodiversity and development: an overview of Namibia's ten-year strategic plan of action for sustainable development through biodiversity conservation 2001-2010*, pp 1-137.

²⁶ Shikongo, S. 2004. Personal communication, Windhoek, 16 October 2004.

²⁷ Barnard, P. and T. Shikongo, 2000. *Namibia's National Report to the Fifth Conference of Parties on Implementation of the Convention on Biological Diversity*. Namibian National Biodiversity Programme, Directorate of Environmental Affairs, Ministry of Environment and Tourism.

bio-trade and desert research and planning²⁸. However, with the merging of the two programmes the funding available for implementation of the NBSAP has been significantly reduced and the preparation of a shorter programme including NBSAP's highest priorities will start in November 2004²⁹.

One constraint to biodiversity conservation and coastal management is the lack of baseline data on the diversity and ecology of most Namibian flora and fauna, with important consequences on the conservation status of most groups of species. Only a small number (possibly as little as 20%) of Namibia's wildlife species have been described to date. Of the 13,637 species that have been described, almost 19% are endemic or unique to Namibia. This high prevalence of endemic species is most pronounced in the Namib Desert and pro-Namib transition zone³⁰, which highlights the need for scientific research in the coastal zone. The creation of the Sperrgebiet Protected Area, formerly inaccessible to scientists, opens the way for scientific research about the Succulent Karoo ecosystem.

3.1.2. Protected Areas

The protected areas in Namibia are illustrated in Figures 1 and 2. MET has drawn management plans for most of the coastal protected areas, yet stakeholder involvement in the process was poor³¹. The process towards proclamation of the Sperrgebiet as a protected area has been more participatory and the Land Use Plan that has recently been prepared is considered to reflect the views of multiple stakeholders³². MET's goal is to have management plans that include zoning of the area and tourism development plans in place for all protected areas, such as the plans that have been prepared for the Namib Naukluft Park³³. The UNDP Protected Areas Project concentrates on development plans for the parks and strengthening capacity of ministry staff to manage the parks. It is based on the recognition that the financial gains from the parks need to be increased, as well as the benefits accrued to neighbours and Namibia as a whole.

MET has written a Parks and Neighbours Policy that entitles the communities living inside and adjacent to protected areas to benefit from business activities inside protected areas. All developments in protected areas are required to prepare an Environmental Impact Assessment (EIA). MET has a "Policy for prospecting and mining in protected areas and national monuments"³⁴, but adequate legal provisions for mining activities are lacking and are expected to be included in the forthcoming Environmental Management Act³⁵. There is also a suggestion to compel mining companies to deposit a percentage of total investment to be used in conservation and rehabilitation of mined areas.

MET is currently responsible for the allocation of concessions in protected areas and communal land. The initial tourism concessions were allocated on the basis of applications that were submitted to the government before and/or in the first year of Independence. These concessions were automatically renewable and are still in the hands of the first concessionaries. In this context and also because the Tourism Policy does not address the issue of concessions and there is no formal tendering process or

²⁸ Barnes, J., 2004. Personal communication, Windhoek, 18 August 2004.

²⁹ Shikongo, S., 2004. Personal communication, Windhoek, 16 October 2004.

³⁰ Government of the Republic of Namibia, 2004. *Namibia Vision 2030. Policy framework for long-term national development: main report*, pp 1-248.

³¹ The poor level of public consultation has been frequently referred to in several conversations, including with Barnard, P., 2004. Personal communication, Cape Town, 8 September 2004; and at the NACOMA preparation workshop held in Swakopmund.

³² Beytell, B. 2004. Personal communication, Windhoek, 13 October 2004.

³³ Beytell, B. 2004. Personal communication, Windhoek, 13 October 2004.

³⁴ Ministry of Environment and Tourism, 1999a. *Policy for prospecting and mining in protected areas and national monuments*. Policy Document. Ministry of Environment and Tourism, pp 1-10.

³⁵ Beytell B. 2004. Personal communication, Windhoek, 13 October 2004.

adequate policy guidelines for tourism as well as hunting concessions, MET decided to change the tourism concessions policy³⁶ and the new "Policy Framework for Concessions in Proclaimed Protected Areas"³⁷ has been prepared and is ready for Cabinet approval.

3.1.3. Conservancies

Increasing emphasis has been placed in Namibia on biodiversity conservation through sustainable use outside the protected areas. There are currently 31 conservancies in the country and 41 are expected by the end of 2004. The creation of conservancies is consistent with a philosophy of integrating conservation with the basic development needs of local people, which also underpins the NACOMA project. The map on Figure 3 with the location of the conservancies and shows the extent of the conservancies adjacent to the narrow strips of the Skeleton Coast Park and National West Coast Tourist Recreation Area. The conservancies adjacent to the Skeleton Coast Park are considered by MET as key to biodiversity conservation in the region while at the same time providing the link between the communities and the park³⁸.

A key part of the government's environmental and biodiversity strategy in rural Namibia is the MET-led National Community-Based Natural Resources Management (CBNRM) Programme, which offers the potential of extending biodiversity conservation and management beyond Namibia's protected areas network, while providing at the same time for wildlife corridors between protected areas. The 'Integrated Community-Based Ecosystem Management' Project (ICEMA)³⁹, currently at launching stage, aims to ensure that community-based integrated ecosystem management practices are supported by the National CBNRM framework and used by targeted conservancies.

In the old system, the Ministry of Lands Resettlement and Rehabilitation (MLRR) was responsible for granting Permissions to Occupy (PTOs) in areas outside of protected areas, either to conservancies or individuals outside conservancy areas. According to the new system, the Regional Land Boards are responsible for the zoning of areas within their region for national and community development and for setting limits on the amount of land that can be made available for leasehold⁴⁰.

³⁶ Boonzaaier, W. and K. /Awarab, 2003. *Policy Framework Options for Tourism Concessioning in Namibia*. A record of Documentary Reviews and Stakeholder Consultations and Possible Policy Options. Ministry of Environment and Tourism. February 2003, pp 1-43.

³⁷ Ministry of Environment and Tourism, 2004b. *Policy Framework for Concessions in Proclaimed Protected Areas*. 7 December 2004.

³⁸ Beytell B. 2004. Personal communication, Windhoek, 13 October 2004.

³⁹ GEF/WB, 2004. Namibia Integrated Community-Based Ecosystem Management (ICEMA) – Project Document. May 2004.

⁴⁰ Boonzaaier, W. and K. /Awarab, 2003. *Policy Framework Options for Tourism Concessioning in Namibia*. A record of Documentary Reviews and Stakeholder Consultations and Possible Policy Options. Ministry of Environment and Tourism. February 2003, pp 1-43.



Figure 3 Registered communal conservancies

(Source: MET)

3.1.4. Marine environment

For the preparation of the NBSAP's Action Plan for sustainable coastal and marine ecosystem management, MET staff was seconded to work in MFMR. This action plan addresses inter alia the development and enforcement of appropriate regulations for protection of MPAs and the establishment of new MPAs around the Namibian islands.

The Benguela Environment Fisheries Interaction and Training (BENEFIT) and the BCLME Programmes' focus is on the large marine ecosystem and resources that are shared between Angola, Namibia and South Africa. BENEFIT is a research programme that aims to promote joint research by the three countries, while BCLME supports the ecosystem's joint management.

3.1.5. Wetlands

Virtually all wetlands in Namibia are under protected⁴¹ and the majority are not incorporated in the country's protected areas network. The coastal wetlands of Walvis Bay and Orange River Mouth, which have been declared Ramsar sites, as well as the Kunene River Mouth, have currently no legal protection

⁴¹ Barnard, P. (ed). 1998. *Biological diversity in Namibia: a country study*. Windhoek: Namibian National Biodiversity Task Force, pp 1-332.

status. MET has recently drafted "Namibia's Wetlands Policy"⁴², which has been sent to relevant line ministries for comments. The development of the wetlands policy was one of the activities envisaged in the NBSAP's *Action Plan for Sustainable Wetland Management*.

3.2. Plans and projects in the coastal zone

Planning for coastal zone management and biodiversity conservation at the regional and local level has included plans for protected areas, coastal zone management projects and plans for areas with no protection status yet regarded as key for biodiversity conservation. A number of these plans as well as projects targeting the coastal area, or the lack thereof, are highlighted in this section. Table 4 at the end of this section summarises the key plans and projects and their relevance to NACOMA.

3.2.1. Kunene River Mouth

The Kunene River Mouth falls within the proposed Skeleton Coast/Iona Transfrontier Park. The lower reaches of the Kunene River contain an assemblage of flora, fauna and landscapes generally regarded as having high wilderness and conservation values. In the past the declaration of the Kunene River Mouth as a Ramsar Site has been investigated but never fully pursued. Angola is increasingly prepared to contribute to the protection of this important wetland – it has adopted its National Policy on Wetland Management and is moving towards becoming a signatory to the Ramsar Convention. The BCLME Programme, together with parties from the three BCLME countries, is undertaking collection of data on the region's biodiversity⁴³.

3.2.2. Skeleton Coast National Park

In the northernmost coastal region of Namibia, the Skeleton Coast National Park extends from the Ugab River in the south to the Kunene River on the Angolan border. The preparation of a new management plan for the park is being planned⁴⁴. The Skeleton Coast has been subjected to great controversy about its uses. The northern part of the park is leased on a long-term basis to a single tourism license holder. This concession is expiring in December and MET is working on changes to the agreement. A number of post 1980 mines operated in the park with no environmental safeguards. Ten years after the closure of the Skeleton Coast Mines, the scars remain and new diamond mining activities have been allowed⁴⁵. Mining, off-road driving, recreational angling, private tourism, littering and the excavation of trenches have left their marks on the environment. A major issue frequently brought up by the Kunene Regional Council is that the park forms a barrier between the people of the Kunene region and the coast, and that it is a relic of Apartheid times when the South African administration divided the country up into Bantustan entities and protected areas at will, and certainly without the input of the local population.

Notwithstanding these issues and threats, progress has been made when a memorandum of understanding was recently signed by the Governments of Namibia and Angola to create a transfrontier area with the Iona National Park in Angola. Unfortunately there appear to have been little consultation with the public or lower tiers of government before this memorandum was signed. With the event of peace, a survey on the Iona National Park⁴⁶ has been conducted by Angolan and Namibian officials in order to get a better understanding of the condition of the park's wildlife. The survey has produced

⁴² Ministry of Environment and Tourism, 2004a. Namibia's Draft Wetlands Policy. April 2004

⁴³ O'Toole, M., 2004. Personal communication, Windhoek, 7 October 2004.

⁴⁴ Beytell B, 2004. Personal communication, Windhoek, 13 October 2004.

⁴⁵ Molloy, F (ed) and T. Reinikainen (ed). 2003. *Namibia's Marine Environment*. Windhoek: DEA Environment Information Systems Unit; Ministry of Environment and Tourism, Namibia, pp 1-162.

⁴⁶ Kolberg, H. and W. Kilian, 2003. *Report on an Aerial Survey of Iona National Park, Angola, 6 to 14 June 2003*. Technical Reports of Scientific Services, Directorate Scientific Services, Ministry of Environment and Tourism. Windhoek, Namibia, December 2003.

important results in terms of wildlife, livestock and population distribution that are significant and can support management initiatives in this new transfrontier park that hitherto exists only on paper.

The area that links the Skeleton Coast to the Etosha National Park is today covered by a mosaic of communal conservancies where a number of initiatives have been implemented to allow rural communities to generate income through biodiversity management and rural development. The conservancies adjacent to the Skeleton Coast are considered by MET as very important in terms of biodiversity conservation⁴⁷. They can provide a link between the communities and the park and act as a buffer zone.

3.2.3. National West Coast Recreation Area

With a lower conservation status than national parks, the National West Coast Recreation Area is subject to intensive recreation pressure especially during summer holidays. The *National West Coast Recreation Area Plan* dates from 1986⁴⁸ but a new management plan is going to be prepared for the area. This area will be proclaimed as a national park due to its importance in terms of biodiversity conservation⁴⁹. The Cape Cross Reserve in the National West Coast Recreation Area, which contains the fur seal colony and lichen fields, is managed by the *Cape Cross Nature Reserve Plan*⁵⁰.

3.2.4. Walvis Bay Wetland

The Walvis Bay coastal wetland supports the greatest number of wetland birds in southern Africa and has been declared Ramsar site. It is also the main feeding grounds south of West Africa for a number of protected migrants and resident bird species, including the greater and lesser flamingo. The dune areas south and east of the lagoon, including the ephemeral Kuiseb Delta, hold significant ecological and cultural values and make up an important part of the area used by the Topnaar community. The Walvis Bay Nature Reserve, comprising Walvis Bay Lagoon and the dune areas east of Walvis Bay, the Kuiseb Delta and the Kuiseb River, lost its protected status at reintegration in 1994.

The Walvis Bay Lagoon falls within the jurisdictions of the Walvis Bay Municipality, NAMPORT and the MLRR and therefore responsibilities for management are not entirely clear. Preparations started in 1998 for the *Walvis Bay Environmental Management Plan⁵¹* as an extension of the Structural Plan for Walvis Bay. In the period between 2001 and 2004, the *Walvis Bay Local Agenda 21 Project* was implemented with funding from the Danish Government. This project aimed to promote sustainable management of the Walvis Bay area in accordance with the Local Agenda 21 principles, by addressing existing problems and obstacles. Some of the key outputs of this project were a Municipal Policy, an environmental strategy and action plan for the coastal area, the establishment of a fund to support community projects, and the implementation of a number of micro projects to raise awareness and promote local involvement in management of Walvis Bay's natural resources. There has been a request to extend the project until December 2004 to inform other municipalities about the project through a series of four workshops in the north, central and south areas. The Project Steering Committee will remain after the end of the project to manage the environmental strategy and action plan⁵².

With a basis on the draft Parks and Wildlife Bill and the resources provided by the Local Agenda 21 project, a renewed effort is being made to investigate the possibility of proclaiming the Walvis Bay

⁴⁷ Beytell B. 2004. Personal communication, Windhoek, 13 October 2004.

⁴⁸ Brady, R., 2004. Personal communication, Swakopmund, 16 August 2004.

⁴⁹ Beytell B. 2004. Personal communication, Windhoek, 13 October 2004.

⁵⁰ Brady, R., 2004. Personal communication, Swakopmund, 16 August 2004.

⁵¹ Burger, L., 1998. *Walvis Bay Lagoon integrated environmental management plan*. Cape Town: Environmental Evaluation Unit, pp 1-53.

⁵² Ushona, D., 2004. Personal communication, Walvis Bay, 16 August 2004.

Nature Reserve, currently unregulated in respect of entry and activities that may be carried out in the area. A workshop has been held in July 2004 to facilitate a common understanding among key role players of the purpose of the nature reserve and to discuss the *Walvis Bay Nature Reserve Draft Management Plan*⁵³. In its draft form, the management plan aims to promote a multiple-use principle in light of the varied interests and the multitude of stakeholders in and around the area. It includes a description of the management approach and goals, together with a framework for decision making and mechanisms for involving stakeholders as well as ensuring socio-economic sustainability of the management measures. The management plan is based on a functional zonation according to different regimes for protection, use and management: Pelican Point, inner lagoon, outer lagoon, Walvis Bay Harbour, Paaltjies Coast, Salt works, Kuiseb River and Kuiseb Delta, and desert and dune areas around Kuiseb River.

3.2.5. Swakopmund / Walvis Bay dunes

The dune area between Swakopmund and Walvis Bay represents the only coastal dunes in Namibia that are easily accessible to the public. In face of the increased use of this area and the lack of protection status, the *Management and Monitoring Plan for the Dune Belt between Swakopmund and Walvis Bay*⁵⁴ has been developed through a consultative process to define how the area can be managed most effectively. The plan recommends that an EIA be conducted to assess the environmental sensitivity of the area and that, in the absence of any other legislation governing the use of the area, the Walvis Bay Municipality be required to pass municipal regulations to govern the use of the area. Its designation as restricted area is suggested, as well as its demarcation into different zones, control of access to and use of the area and the delegation of certain powers of enforcement to tour operators. The establishment of an environmental fund is proposed into which all revenue generated from permit fees is paid and can be used to facilitate better regulation and monitoring of the area. The long term perspective is that this area should be declared as a protected area.

3.2.6. Erongo Region

The DANCED-funded project entitled *Integrated Coastal Zone Management of the Erongo Region* was implemented during five years with the aim to maintain the long-term sustainable economic and ecological potential of the coastal zone in the Erongo Region, by establishing a management system for sustainable development of the coastal zone⁵⁵. One of the outputs of the project was the Coastal Profile of the Erongo Region⁵⁶, which established environmental and socio-economic baseline information about the coastal areas of the region to support management decisions in the municipalities, the line ministries and Erongo Regional Council. The results of the project were extended into the other coastal regions by starting to train staff and policy-makers in ICZM issues and by providing partial support to the Integrated Coastal Zone Management Committee (ICZMC)⁵⁷.

In the tourism town of Swakopmund conservation responsibilities lie with MET, which has a regional office in town, while the Municipality's Department of Environmental Health focuses on service

⁵³ Clayton, M. (ed.), 2004. Walvis Bay Nature Reserve Training Wokrshop - Report. Welwitchia Conference Centre, Walvis Bay, 28 – 30 July 2004. Walvis Bay Local Agenda 21.

⁵⁴ Clayton, M and Avafia, T., 2002. *Management and Monitoring Plan for the dune belt between Swakopmund and Walvis Bay*: Annexure A. Unpublished document, pp 1-63.

⁵⁵ Ministry of Environment and Tourism, 1997. *Integrated coastal zone management of the Erongo Region Namibia*. Inception Report. Ramboll: Ministry of Environment and Energy, pp 1-43.

⁵⁶ Regional Council of Erongo, 1999. *Coastal Profile of the Erongo Region*. Integrated coastal zone project. August 1999, pp 1-214.

⁵⁷ McGann, J., F. Odendaal and L. Nakanuku, 2001. *Report on the integrated coastal zone workshop held in Swakopmund*, Namibia May 10-11, 2001, pp 1-59.

rendering, environmental impacts and public health. An Environmental Conservation Committee has been created in the Municipality, with representatives from MFMR, MET and some local tour operators, to discuss potential environmental impacts from projects and advise the Management Committee⁵⁸.

3.2.7. Namib Naukluft Park

In 1980 a policy regarding the objectives, zonation and utilisation of the Namib Naukluft Mountain complex and adjoining gravel plains, including Sesriem and Sossusvlei, was approved. The Management Plan evolved into a *Conservation Strategy and a Development Guide for the Namib Naukluft Park* in 1999. The strengths, weaknesses, opportunities and threats in the park are assessed in the *Management and Tourism Development Plan for the Namib Naukluft Park*⁵⁹. The goal and vision of the plan is 'to create a world class Desert Tourism Experience which is ecologically and financially sustainable, and which contributes to Namibia's economic development'. Zonation of the area is suggested according to existing limiting factors, sensitivity and potential for different uses and close cooperation with local and regional authorities, communities and other groups is encouraged to ensure positive impacts on the Topnaar community living within the Park, freehold farmers in or on the borders of the park, as well as the adjacent urban centres.

The Meob Conception Area used to fall into a security area for diamond mining where public access was prohibited. After a period of fifty years of intermittent diamond mining activities in the area, recent prospecting has shown that the diamond resources are depleted. Following de-proclamation, the *Meob Conception Area Land Use Plan*⁶⁰ was prepared to provide guidance for future land use development, compatible with the overall goals of the Namib Naukluft Park. The goals and management objectives set out in the Namib Naukluft Park Development Guide were used as a basis for the Meob Conception Area land use management plan. According to the plan, this area should continue to be regarded as an integral part of the Namib Naukluft Park and the most suitable land use options are tourism, conservation and research, for which the area would have to be zoned as IUCN Category 5 Protected Landscapes and Seascapes. Due to its remote location and lack of infrastructure, the Meob Conception Area remains relatively untouched and boasts attractions such as marine and bird life, and archaeological and historical sites⁶¹. Falling in the "coastal foggy zone" characterised by wind, fog and temperature extremes, the hyper-arid Meob Conception Area has little vegetation. Hardy succulents can be found in sheltered sports, as well as some hummock vegetation that has developed that provides important habitat for gemsbok, brown hyena and jackal, as well as for rare and endangered species such as the Namaqua dwarf adder and the desert rain frog. Lichens thrive in the cool misty conditions of the coastal zone.

3.2.8. Sandwich Harbour

Within the Namib Naukluft Park, the Sandwich Harbour covers almost 25 square kilometres of crucial wetlands, comprising saltmarsh, intertidal flats, and vast mudflats. It supports eight Namibian Red Data bird species including the Damara Tern, a species breeding mostly in Namibia, with about 90% of the world's population occurring along the coast⁶². There are high densities of waterbirds, including

⁵⁸ Lawrence, C., 2004. Personal communication. Swakopmund, 16 August 2004.

⁵⁹ Ministry of Environment and Tourism, 2003a. *Namib-Naukluft Park: Management and tourism development plan.* (Draft 3/04). Windhoek: Ministry of Environment and Tourism, pp 1-36.

⁶⁰ Ministry of Environment and Tourism, Ministry of Lands, Resettlement and Rehabilitation, Ministry of Mines and Energy, 2001. *The MEOB – conception area land use plan*. Report No W309/2. Walmsley Environmental Consultants, pp 1-44.

⁶¹ Ministry of Environment and Tourism, 1999b. *Proposal to produce a land use plan for the Sperrgebiet and MEOB – conception area of the Namib Maukluft Park*. Walmsley Environmental Consultants, pp 1-7.1.

⁶² O'Toole, M.J., 1997. *Marine Environmental threats in Namibia*. Research Discussion Paper, 23. Windhoek: DEA Publications Department, Ministry of Environment and Tourism, pp 1-48.

flamingos, pelicans and very high numbers of waders, which can number almost 200,000 and reach densities of 7000 birds per square kilometre⁶³. While it was at one time the only national protected marine area in Namibia, this formal protection is no longer in place. Although reduced, some protection from fishing remains, but has been shown to be difficult to effectively police. Despite being a Ramsar site, there is jurisdictional dispute between the MFMR and MET as well as conflicting sectoral legislation and this has resulted in the status of this reserve being questionable⁶⁴. Sandwich Harbour is nevertheless a specially protected area in the Namib Naukluft Park that is rarely visited by tourists and still closed to anglers at certain times of the year.

3.2.9. Sperrgebiet

The recently proclaimed Sperrgebiet National Park in sheer number of species can be considered Namibia's most significant biodiversity hotspot; it forms an epicentre of biodiversity in the Succulent Karoo floral kingdom that is shared with South Africa. According to the State of the Environment Report on Parks, Tourism and Biodiversity⁶⁵, the southern Namib centre of endemism in the Sperrgebiet is an area of special ecological importance requiring urgent conservation protection. The *Succulent Karoo Ecosystem Programme (SKEP)* promotes biodiversity conservation and sustainable land use in this biome and has evolved during a one-year planning phase. However, the restricted access to the area has created an air of mystery around the Sperrgebiet and most people are unaware of its values and importance for the regional and national economy.

NAMDEB operated for decades in the Sperrgebiet with no inspections from any sector of government and minimal environmental restrictions. However, by way of the strict limitations on access to diamond areas, the Sperrgebiet for its most part has remained protected from outside influences with mining activities largely restricted to the coast. In 1994 a formal environmental assessment process started where NAMDEB committed to developing environmental management plans for their operations and rehabilitation of old sites. The development of the *Sperrgebiet Land Use Plan*⁶⁶ was the first phase of the process towards the proclamation of the Sperrgebiet as a protected area under the forthcoming Parks and Wildlife Act and its ultimate integration in the TFCA.

Future land use options in the Sperrgebiet, as outlined in the land use plan, include prospecting and mining under strict environmental conditions, with diamond mining probably continuing up to the cessation of the land/based mining licenses in 2020. The Plan can open up further challenging tourism opportunities, but given the sensitivity of the environment and the physical constraints of the area, some proposed tourism activities are more suitable for the Sperrgebiet than others. In addition to conservation and research, the draft management plan considers aquaculture only marginally suitable in the short term and mariculture possibly suitable near Oranjemund in the long term, by utilising the dredge ponds once mining ceases, and seal harvesting is suitable depending on the results of ongoing research in the area. Rosh Pinah, Aus, Lüderitz and Oranjemund are regarded as development nodes and gateways to the Sperrgebiet, while the privately owned lands along the eastern boundary of the Sperrgebiet will enjoy higher densities and a greater diversity of land uses than areas inside the Sperrgebiet itself.

Under the preliminary zoning for the multiple use of the Sperrgebiet National Park, rehabilitation of mining areas in the western strip could mean that ultimately they would be available for some other type

⁶³ Barnard, P. (ed). 1998. *Biological diversity in Namibia: a country study*. Windhoek: Namibian National Biodiversity Task Force, pp 1-332.

⁶⁴ Molloy, F (ed) and T. Reinikainen (ed). 2003. *Namibia's Marine Environment*. Windhoek: DEA Environment Information Systems Unit; Ministry of Environment and Tourism, Namibia, pp 1-162.

⁶⁵ Government of the Republic of Namibia, 2000. *State of the environment report on parks, tourism and biodiversity*. Online. Available from <u>ftp://ftp.polytechnic.edu.na/pub/soer/biodiversity</u> [28 July 2000].

⁶⁶ Ministry of Environment and Tourism, 2001. *The Sperrgebiet land use plan (Second Draft)*. Project No: W309/1 January2001. Walmsley Environmental Consultants, pp 1-173.

of land use in the future. Recreational activities and vehicle access are planned for protected landscapes/seascapes such as the Diamond Coast Recreation Area and the area around Oranjemund. Areas reserved for conservation range from the Orange River Mouth, offshore islands and natural monuments such as the Bogenfelds Arch to the eastern parts of the park where slightly higher public usage will be allowed. The wilderness area, in the centre the park, will allow for low usage and no or minimal mechanised access, while zones of strict area reserve will be set aside throughout the park for scientific study.

MET is currently preparing the new border description of the Sperrgebiet and it is suggested that the area extends three miles into the sea. Based on the land use plan, a management plan will be prepared for the park. A suggestion has been put forward by NAMDEB that they be the sole tourism concessionaires in the coastal area where mining activities take place⁶⁷. This suggestion should be assessed with caution, as even though it promotes the idea of alternative activities in face of future decommissioning, it may close access to other entities that could also play a role in the area.

3.2.10. Islands and other potential Marine Protected Areas (MPA)

There are fifteen nearshore islands or rocks along the Namibian coast to the north and south of Lüderitz. These islands provide breeding habitat for seabirds due to their geographical position in the Benguela upwelling system and their inaccessibility to mammalian predators. The abundance of fish in these waters attracts piscivorous seabirds to the area. Nine seabird species and one wader breed on the island, and numerous waders and non-waders visit the islands during the summer to feed on the rocky shores. The islands may support 12,5% of the estimated world population of African black oystercatchers.

The islands are largely devoid of vegetation, with rocky intertidal zones and no fresh water sources. Little is known about the other terrestrial biota of the islands. Possession Island, the largest and most vegetated island, had the greatest richness in surveys conducted in the mid eighties, with nine species of terrestrial invertebrates and one vertebrate. Numerous Cape fur seals occur in breeding colonies on most of the islands. In the two most important seabird islands, Ichaboe and Mercury, Cape fur seals are kept off to prevent competition for breeding space and ensure the harvest of seabird guano. The largest seal populations occur on Long, Albatross and Sinclair's Islands.⁶⁸

| Island | Biodiversity value | | |
|------------|--|--|--|
| Possession | Largest island and most vegetated; greatest richness in terrestrial biota (nine species of terrestrial invertebrates and one vertebrate); rich history; 2.7 nautical miles (nm) offshore | | |
| Ichaboe | One of the 2 most important seabird islands (the other is Mercury); 1.3 nm offshore | | |
| Mercury | <i>y</i> One of the 2 most important seabird islands (the other is Ichaboe); contains sizeable seal population; diverse rock pools; 1.0 nm offshore | | |
| Long | One of the 3 islands with the largest seal populations (the others are Albatross and Sinclair); 1.0 nm offshore | | |
| Albatross | One of the 3 islands with the largest seal populations (the others are Long and Sinclair); 3.0 nm offshore | | |
| Sinclair | One of the 3 islands with the largest seal populations (the others are Long and Albatross); 0.3 nm offshore | | |

| Table 3 | Some of the nearshore islands and their biodiversity value |
|---------|--|
|---------|--|

Other islands include Hollams Bird Island, the furthest offshore at a distance of 10.7 nautical mile (nm) from land, and Neglectus, Staple Rock, Seal, Halifax, Plum Pudding, Lady's Rock, North Reef and

⁶⁷ Beytell, B. 2004. Personal communication, Windhoek, 13 October 2004.

⁶⁸ Barnard, P. (ed). 1998. *Biological diversity in Namibia: a country study*. Windhoek: Namibian National Biodiversity Task Force, pp 1-332.

Pomona Islands. All of them except Hollams Bird Island are 3 or less nm from the shore. Apparently the Sperrgebiet extends 3 nm⁶⁹ into the sea and hence include all the islands except for Hollams Bird Island. It obviously would make sense to include these precious islands in the proposed Sperrgebiet National Park. Such a step will require negotiations between MFMR and MET and should be viewed as a priority early in the implementation phase of NACOMA.

Varying views were encountered wit respect to Marine Protected Areas (MPA) in Namibia. The Baseline Study on the Establishment of Marine Reserves in Namibia⁷⁰ listed a proposed number of marine reserves that included in the Sperrgebiet alone the following sites: Ichaboe Island, Lüderitz Bay and Lagoon, Halifax Island and Guano Bay, Wolf and Atlas Bay, Possession Island, Black Rock, Van Reenen's Bay and Bogenfels, Sinclair Island and Lion's Head and Chameis Bay. Clearly the study mentioned above has been overtaken by more recent events such as the proposed Sperrgebiet National Park. That provides the better option of including the sites in a larger protected area rather than have a number of disjunct reserves scattered along the coast. A further view on marine reserves that the researchers encountered was that Namibia's marine resources are increasingly been placed under a sustainable resource use regime that would automatically protect the living marine resources, thus obviating the need for marine reserves in the strict sense. By and large there appeared to be no clear direction taken with respect to marine reserves, this perhaps being the result of lack of clarity where the jurisdictions of MET and MFMR begin and end with respect to one another. A good example is the current situation with respect to the islands South and North of Lüderitz. It is proposed that early in NACOMA implementation a workshop be held, preceded by a situational analysis, to discuss the issue and future direction of marine reserves between the relevant parties.

3.2.11. Orange River Mouth

On the border with South Africa, the Orange River Mouth was declared a Ramsar site in 1991 and subsequently added to the Montreux Record in 1995 due to degradation of the wetland. While considered to be one of the most important wetlands in southern Africa, the river mouth is a degraded site with decreasing water bird numbers. The Orange River Mouth is described as a delta-type river mouth of salt marshes, sand banks and islands, multiple river channels, and a tidal basin. It is considered one of the top six most important wetlands in southern Africa in terms of water bird usage – 60 bird species have been recorded in the river mouth and use the site as a breeding ground or migration stopover point⁷¹. Of these, 15 are Red Data Book species. In addition, flora demonstrates exceptionally high rates of diversity and endemism. Despite its importance, there is no official conservation status for the Orange River Mouth in either Namibia or South Africa. Much of the surrounding land is part of a concession for diamond mining and access to the river mouth is restricted as a result. The importance of the Orange River Mouth is global in terms of water birds and fisheries, but also regional in that it serves as an ecological and cultural epicentre to the region and the evolving Greater !Gariep TFCA.

The *Orange River Mouth Development Plan*⁷² provides an introduction and background of the study area of the Orange River which forms the border of South Africa and Namibia. The second phase plan⁷³

⁶⁹ Some discrepancy exists here as the Sperrgebiet Land Use Plan refers to "three kilometres" while MET staff referred to 3 nm.

⁷⁰ Masteller, M., 1998. *Baseline Study on the Establishment of Marine Reserves in Namibia*. Short-term Consultancy Report for GOPA Consultants. Advisory Assistance to the Ministry of Fisheries and Marine Resources.

⁷¹ Dini, J., 2001. *The Orange River Mouth Transboundary Ramsar Site*. Report for the Integrated Conservation and Development Workshop, April, 2001. Cape Town: Eco Africa Environmental Consultants.

⁷² HEATH, R., 2001. Orange River Mouth Development Plan, Phase 1: draft report. Pulles Howard and De Lange: Auckland Park. pp1-5.14.

⁷³ Heath, R., 2001. *Orange River Mouth Development Plan, Phase 2: draft report*. Pulles Howard and De Lange: Auckland Park, pp 1-24

was developed with the intention of forming an economically functioning Orange River Mouth Ramsar site with funds and support from national, international and institutional sources. This phase focused on land uses, onsite and offsite rehabilitation, tourism and development plans, social development, infrastructure and general environmental issues to be considered.

3.2.12. The Greater !Gariep Transfrontier Conservation Area (TFCA)

The coastal areas of the Karas Region form part of a much larger entity known as a Transfrontier Conservation Area (TFCA)⁷⁴. The Greater !Gariep TFCA⁷⁵ straddles the border of Southern Namibia and South Africa (see Figure 4 below). Certainly on the Namibian side the TFCA includes the Sperrgebiet and the Orange River Mouth Ramsar Site. Stretching inland from the coast the TFCA includes some thirty odd areas under some form of protective management or conservation-oriented land use, most of it falls in the Karas Region. It is part of a "Big Picture" story that includes the entire Namibian coast and extends into South Africa in the South and Angola in the North.

The Greater !Gariep TFCA clearly illustrates an important reality pertaining to NACOMA Biodiversity conservation at a regional and local level has the potential to burgeon into unmanageable proportions considering the available capacity of the few MET line ministry officials at regional level who are already understaffed, overworked and under-budgeted. They cannot possibly manage this emerging picture on their own. With Regional Council on board and better capacitated, as well as collaboration with other possible partners, the TFCA can keep growing as an Integrated Conservation and Development (ICD) initiative that should be embedded in the Regional Development Plan (RDP) of the Karas Region⁷⁶. Clearly some institutional capacity building needs to happen, and NACOMA may be able to support that process, aided by the ongoing decentralisation process.

⁷⁴ The World Bank defines TFCAs as 'relatively large areas that straddle frontiers (boundaries) between two or more countries and cover large-scale natural systems encompassing one or more protected areas'.

⁷⁵ Suich, H. et al., forthcoming. Reflections on Transfrontier Conservation Areas (TFCAs) using the emerging Greater !Gariep TFCA along the Namibian and South African border as an example.

⁷⁶ Please see Section 4 for more details on the Regional Development Planning process.



Greater !Gariep Transfrontier Conservation Area (TFCA)

Figure 4 Map of the emerging Greater !Gariep Transfrontier Conservation Area (TFCA)

Note that the Greater !Gariep TFCA consists of a variety of landowners and *types* of protected areas. It is difficult to conceive that the TFCA can be "managed" by a single entity such as regional MET line ministry officials. Also there is no provision in the current policies and law for TFCA. If however the TFCA can be embedded in the RDP, aided by the proposed institutional and capacity building action proposed to be part of the NACOMA Project, it will gain a certain level of official status as is the case on the South Africa side where it has a prominent place in the Integrated Development Plan (IDP) of the Richtersveld that has statutory power under the Municipal Systems Act of 2000.

3.2.13. Relevance to NACOMA of plans and projects targeting the coastal environment

The Namibian coastal areas are the subject of various plans and projects pertaining to the coastal areas. While the different plans and projects are not always sufficiently coordinated or interlinked, they are certainly relevant to NACOMA. Table 4 analyses how NACOMA can support or fit in to the most important plans and what "lessons learned" from some projects can be applied to NACOMA and what ongoing or planned project activities can be supported by NACOMA.

| Key Plans and Projects | Relevance to NACOMA |
|---|--|
| Biodiversity and Development in Namibia (NBSAP): Namibia's Biodiversity Strategy and Action Plan (NBSAP) outlines the strategy, activities and responsibilities for biodiversity conservation for ten years (2001-2010). | The NACOMA Project can pursue the vision for biodiversity conservation developed in the NBSAP by addressing some of the issues identified in that document that pertain to the coastal areas. Key to NACOMA in the NBSAP are the <i>Action Plan for Biodiversity Conservation Priorities</i> (Chapter 1), the <i>Action Plan for Sustainable Wetland Management</i> (Chapter 5), the <i>Action Plan for Sustainable Coastal and Marine Ecosystem Management</i> (Chapter 6), the <i>Action Plan for Integrated Planning for Biodiversity Conservation and Sustainable Management</i> (Chapter 7) and the <i>Action Plan for Capacity Building for Biodiversity Management in Support of Sustainable Development</i> (Chapter 9). NACOMA will focus on key biodiversity hotspots in the coastal areas and will support areas that are currently underprotected, such as the islands near Lüderitz. NACOMA can also ensure that adequate input is provided into the process of zoning, development of guidelines and environmental assessment of proposed aquaculture developments along the coastal areas. Support through NACOMA in terms of Regional Councils' institutional and capacity building can incorporate relevant NBSAP parts into the RDPs. |
| Skeleton Coast Park Management Plan: a new plan will be developed, including zoning of the area and a tourism development plan. | NACOMA can support the preparation of the new management plan by facilitating a participatory and consultative process that provides input from the different stakeholders that can benefit from the wise use of the area. The conservancies adjacent to the Park are considered by MET as key for biodiversity conservation. NACOMA can assist linkages between the conservancies, MET and the Kunene Regional Council through the RDP. Transboundary conservation areas are also a priority for MET. however, as is illustrated in the development of the Greater !Gariep TFCA, the various components need to be positioned into a spatially presented ICD picture and Regional Councils can play a pivotal role in this regard. |
| National West Coast Tourist Recreation Area Plan: management plan dating from 1986 will be replaced with management plan for proclaimed park. | NACOMA can support the process of preparation of the new management plan by facilitating a participatory and consultative process that provides input from the different stakeholders that can benefit from the wise use of the area. This geographic area is perceived by MET as a priority in terms of conservation and should therefore be considered a priority for NACOMA as well. It falls outside the current national parks and constitutes a typical ICD picture that can be advanced by regional authorities. |
| Walvis Bay Nature Reserve Draft Management Plan: the Plan describes the management approach and goals, together with a framework for decision- making and mechanisms for | The Walvis Bay Lagoon and surrounding area constitute an important biodiversity hotspot that has no protection status and faces significant threats to biodiversity from economic activities. This area is seen as a priority by MET. NACOMA can play a supporting role through its institutional strengthening and capacity building component by helping to clarify roles of the different parties (Walvis Bay Municipality, NAMPORT and the MLRR) currently in conflict, and making sure "lessons learned" from the ICZM-Erongo Project are used. NACOMA can support the revision and stakeholder consultation process for this plan. The envisaged policy process can use |

Table 4 Key plans and projects targeting coastal biodiversity and their relevance to NACOMA

| Key Plans and Projects | Relevance to NACOMA |
|--|--|
| involving stakeholders as well as ensuring socio-economic sustainability of the management measures. | Walvis Bay Nature Reserve as a concrete case study. |
| Management and Monitoring Plan for the Dune Belt between Swakopmund and Walvis Bay: this document contains the output of consultations and recommendations for management of the area. | The plan recommends that an EIA be conducted to assess the environmental sensitivity of the area. However, this area is not considered by the ICZM-Erongo Project crucial in terms of biodiversity conservation. NACOMA can support efforts towards the zoning of the area, control of access to and use of the area and the channelling of tourism fees into better regulation and monitoring of the area, as suggested in the plan. T |
| Management and Tourism Development Plan for the Namib Naukluft National Park: the Plan presents the values, policies and principles on which management decisions in the Park should be made. Currently in draft version for discussion. | MET envisions similar plans for all protected areas and therefore the Plan and the process through which it was prepared provide important "lessons learned" that should be applied to the other protected areas. The Plan is based on a discussion of the Park's strengths, weaknesses, opportunities and threats undertaken by MET staff. The Plan states the need for collaboration at all levels and the integration of the Park in the socio-economic landscape to achieve the potential benefits that could arise from the vision for the Park, and NACOMA can support further dissemination and discussion of the Plan with key stakeholders in the region to make sure they share the same vision for the Park and can thus more effectively contribute to, and share the benefits from it. The Plan recognises the need for training to implement a new style of management that focuses not only on biological issues but also requires social, economic and business skills. The procurement process provided for in the plan for much of the investment and improved skills required from the private sector will constitute key opportunities for NACOMA support to strengthening the link between protected areas, Regional Councils and rural communities. The Plan recognises that the current Park boundaries are not the most efficient for conservation of the Namib region's biodiversity and thus calls for an improvement of the conservation status of the area, in particular the formal protection of the coast and immediate marine environment. Ensuring adequate protection of the coastal and marine biodiversity environments is key to NACOMA support in this case will be in terms of strengthening the institutional and legal framework for coastal zone management through a participatory policy development process. The Plan considers tourism concessions to be awarded over limited time periods in specified areas. NACOMA can support targeted investments proposed by communities, which is highlighted in the plan, can be facilitate |

| Key Plans and Projects | Relevance to NACOMA |
|---|--|
| | in this dialogue and also accrue benefits.NACOMA can also support activities targeted at environmental education of the people in the region, especially planners and those that do not know their coast. |
| Meob Conception Area Land Use Plan: Prepared to provide guidance for future land use development, compatible with the overall goals of the Namib Naukluft Park. | This area falls fully in national park on the west side of the Namib Naukluft National Park and thus can potentially be supported by UNDP funding for Protected Areas. |
| Sperrgebiet Land Use Plan: First phase of the process towards the proclamation of the Sperrgebiet as a protected area under the forthcoming Parks and Wildlife Act and its ultimate integration in the TFCA. | NACOMA can support a participatory process to prepare the Sperrgebiet management plan. It will be extremely important to provide opportunities for the people in the Karas Region to see their coast and participate in future uses of the area. It will furthermore be important to integrate coastal and marine biodiversity protection with development and NACOMA can provide support through the strengthening of the integrated coastal zone management structures involving the key line ministries and regional government. The multiple uses proposed for the Sperrgebiet will open way for targeted investments that can be supported by NACOMA. The Diamond Coast Recreational Area, which includes Lüderitz, provides multiple opportunities for targeted investments, environmental education, etc. as this is where the coastal population is concentrated. NACOMA support can aid the positioning of this area in the Sperrgebiet which surrounds it. |
| Orange River Mouth Development Plan: Focuses on land uses, rehabilitation, tourism, social and development plans, infrastructure and general environmental issues. | NACOMA can encourage clarification of the institutional set-up and the drawing up of a transfrontier management plan. |
| Coastal Profile of the Erongo Region: It establishes environmental and socio- economic baseline information about the coastal areas of the region to support management decisions in the municipalities, | This document provides a template that the other regions can build upon. NACOMA can support the development of a common format for the four regions, and the preparation / revision of the coastal profiles. Through NACOMA the Regional Councils will have their capacities built to prepare and continuously update the Coastal Profiles. Most importantly, NACOMA will facilitate a process to develop coastal profiles whereby the views of coastal players are reflected. NACOMA can also support the preparation of an overarching coastal profile of the entire coast, including a popular version to be used for awareness raising purposes. The existing coastal zone profile for the Erongo Region and all future coastal profiles provide valuable baseline information |

| Key Plans and Projects | Relevance to NACOMA |
|---|--|
| the line ministries and Erongo Regional Council. | for an economic valuation of the Namibian coast. |
| Walvis Bay Local Agenda 21 Project: The project aimed to promote sustainable management of the Walvis Bay area in accordance with the Local Agenda 21 principles. | The project provides a framework that can be replicated in other municipalities such as Lüderitz. The project generated important "lessons learned" about environmental management at the municipal level that can be applied to NACOMA, as well as built local capacity that can be strengthened and replicated in the other regions by NACOMA. The Project Steering Committee will remain after the end of the LA21 project to manage the environmental strategy and action plan and can play an important role in NACOMA, for instance to provide guidance to targeted investments in the municipality. NACOMA can provide matching funding for community projects supported by the LA21 fund that address biodiversity conservation. The "lessons learned" in the development of a Municipal Policy can give input into the development of a common vision for a coastal zone policy during NACOMA implementation. |
| Integrated Coastal Zone Management of the Erongo Region: The project aimed to maintain the long-term sustainable economic and ecological potential of the coastal zone. Implemented during 5 years in the Erongo region and resulting in the establishment of the ICZMC. Followed by an extension phase to train the other 3 coastal regions. | This project has shown that it essential to build capacity for new functions to be devolved to, and maintained by the Regional Councils. Activities in the ICZM-Erongo Project such as the establishment of an environmental and socio-economic database were not fully accomplished but NACOMA can build on the database and train more staff to use it. This can be followed by GIS training and will build capacity for land use planning that is lacking in the Regional Councils. NACOMA can furthermore build on the training provided during the ICZM-Erongo Project to the other coastal regions. This project has shown that considerable effort needs to be put into establishing effective coordination between the different players, e.g. line ministries and regional government. NACOMA focuses exactly on this coordination and on bridging the gap between biodiversity conservation and the communities. This project produced a list of possibilities of environmental initiatives for funding and some of them can be supported by NACOMA. It also produced a list of key biodiversity hotspots in the Erongo Region, their values and threats that can be used in the guidelines and criteria for targeted investments. |
| Baseline Study on the Establishment of Marine Reserves in Namibia: lists a proposed number of marine reserves. | Early in NACOMA implementation a workshop can be held to clarify where the jurisdictions of MET and MFMR begin and end and define the future direction of MPAs between relevant parties. Negotiations between MFMR and MET should be a priority in NACOMA implementation to define the future situation of the islands off the Sperrgebiet. |

Conclusions

- 1. The biodiversity conservation framework in Namibia has remained largely centralised, with poor coordination between MET and the regions. The plans that are today in place to manage the protected areas along the coast are implemented by MET with little or no coordination with regional development planning. The revision of preparation of new management plans for protected areas (e.g. Sperrgebiet, National West Coast Tourist Recreation Area, Skeleton Coast Park and proposed MPAs) provide opportunities during the NACOMA Project to promote participatory processes that take into account the views of stakeholders and potential benefits to the wider population.
- 2. There are positive examples of efforts initiated or undertaken by regional and local players to protect and raise the conservation status of key biodiversity sites such as the Orange River Mouth and the Walvis Bay Lagoon. Projects such as the Walvis Bay Local Agenda 21 and the Integrated Coastal Zone Management Project in the Erongo region provide invaluable "lessons learned" for that can be tapped during NACOMA implementation and examples to be replicated in other sites.
- 3. While many conservation plans exist, they are not easily found or accessible in one place. Similarly, many types of protected areas exist but not everyone is aware of them, let alone the reasons behind their existence. Easy access to such information will add considerable value to the great efforts on behalf of conservation undertaken in Namibia through the years, and will make it much easier to transform conservation along the coastal areas into a coherent picture.
- 4. NACOMA can build on existing initiatives (such as the database developed through the Integrated Coastal Zone Management Project in the Erongo region and the preliminary wetlands database prepared by the NBSAP Wetlands Task Force) and use regional capacity built throughout the project to enhance biodiversity information and make it accessible to the different stakeholders according to specific needs.
- 5. The importance of planning is recognised by most parties, as is illustrated by the large number of plans that exist. The Regional Development Plans (RDPs)⁷⁷ provide an ideal opportunity to harmonise those plans into one spatial picture and to position them into the broader development framework. Enhanced institutional capacity building in terms of planning through NACOMA support can make this possible.
- 6. While many conservation plans exist at the local level very few have been realised. Often the obstacle is the lack of relatively small funding, institutional clarity or all-round stakeholder involvement. Increased cohesion of stakeholders supported by participative regional planning will help move plans along, together with targeted investment made available through the NACOMA Project.

4. DEVELOPMENT PLANNING

4.1. National planning framework

In the Namibian context planning typically takes place in a highly centralised environment, a situation that is gradually changing with the ongoing decentralisation process. Namibia's *Vision 2030*⁷⁸ is designed as a broad, unifying vision that can serve to guide the country's five-year development plans and, at the same time, provide direction to government ministries, the private sector, NGOs, civil

⁷⁷ Please see Section 4.2 of this report.

⁷⁸ Government of the Republic of Namibia, 2004. *Namibia Vision 2030. Policy framework for long-term national development: main report*, pp 1-248.

society, and regional and local government authorities. The aim of Vision 2030 is to transform Namibia from a developing, lower-middle income to a developed, high-income country by the year 2030. The main body dealing with planning at national level is the National Planning Commission. The Commission coordinates and directs national planning, whereas the line ministries are responsible for planning in their respective sectors. The *Second National Development Plan (NDP2)*⁷⁹ presents policies that are geared to achieve the medium-term objectives of this vision.

4.2. Regional development planning

Spatial planning at regional level is under the auspices of the Ministry of Regional and Local Government and Housing (MRLGH). The National Planning Commission, comprising Ministers of various government departments including the MRLGH but not the MET⁸⁰, is responsible for the development of Regional Development Plans (RDP) for each region. The RDPs outline each of the regions' development potentials and weaknesses. Comprising a programme for action for the economic, social, and institutional structures in each region, the RDPs are also intended to guide decision and policy makers and assist officials at the national, regional and private level. RDPs have been prepared for all four coastal regions for the period 2001/2002 to 2005/2006. They provide an overview of the region with a situational analysis and directions for future developments; the development plan framework for the different sectors; and a programme summary with specific objectives, activities and projects.

4.2.1. Kunene Region

The *Regional Development Plan for the Kunene Region*⁸¹ identifies ecotourism, combined with CBNRM as the region's major growth sector. Ecotourism can take advantage of the region's scenery, cultural heritage and wildlife and has the potential to reduce rural poverty in many parts of the region. Erongo Region. While tourism has been identified as a key development sector for the Kunene Region, further promotion of tourism depends on the provision or upgrading of the necessary infrastructure. A range of tourism facilities exists in the region, from community campsites to exclusive fly-in lodges, and ten more conservancies are currently being established. The RDP for the Kunene Region proposes a set of programmes to boost tourism in the region that include the creation of tourism information offices and a regional promotion office, the upgrading of off-road vehicle routes, the development of community tourism camps, training and development of cultural and ethnic skills.

4.2.2. Erongo Region

The vision of the *Regional Development Plan for the Erongo Region* is to transform Erongo into a region with a more diversified economy in an effort to create employment and wealth in the region, and more equitable distribution of resources, facilities and services throughout the region and among its inhabitants. Some of the objectives the plan defines for the tourism sector are to increase participation of previously disadvantaged entrepreneurs and integrate more community-based facilities in the mainstream tourism activity. Programmes proposed in the RDP for the tourism sector include the establishment of a cultural museum, improvement of public tourism facilities such as in Cape Cross, and

⁷⁹ Government of the Republic of Namibia, undated b. *Second National Development Plan (NDP2)* 2001/2002 – 2005-2006. Windhoek, National Planning Commission.

⁸⁰ The National Planning Commission Act allows for the appointment by the President of an additional eight persons including one with knowledge of ecological matters, so this could conceivably be someone from MET (see Report on *"Review of Policy and Legislation Pertaining to Coastal Zone Management"* for more information).

⁸¹ Regional Council of Kunene, undated. *Regional Development Plan 2001/2002 – 2005/2006, Kunene Region*. Opuwo: Namibian Development Consultants, pp 1-147.

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training for community-based tourism. Walvis Bay Rural area is identified in the RDP as priority 1 area for tourism development while the coastal zone is classified as priority 2 area.

Future growth in the Erongo Region is likely in terms of fishing industries, offshore mining, and oil drilling activities⁸². The RDP highlights the need for diversification in the fisheries sector, namely through aquaculture development and further downstream processing of fish. Progress in this area includes the demarcation of sea front plots in Henties Bay for aquaculture development by the Town Council. In Swakopmund, oyster culture is well established in the Salt Works and an abalone and oyster farm is being developed on municipal land at Mile 4. Walvis Bay offers a sheltered Bay with an area of 200 ha already zoned for mariculture by NAMPORT⁸³. Walvis Bay is to become a national node because of the port and subsequently the Trans-Kalahari and Trans-Caprivi highways.

4.2.3. Hardap Region

The *Regional Development Plan for the Hardap Region*⁸⁴ identifies diversification of agriculture, including game farming, and the improvement of land use planning for agriculture as priorities. Trade and industry within the Hardap Region will continue to be dominated by Mariental and Rehoboth, leaving the other constituencies with limited development opportunities. The diamonds at Conception Bay and Fishers Pan have been exhausted, but clay mining may hold potential on a small scale by local community. Tourism is identified in the RDP as a preferred land use option in the region. With the proposed development of the Sperrgebiet to the south and the number of up market lodges along the eastern boundary of the Namib Naukluft Park, there will be an increasing demand for access to the area from Lüderitz. A concession for a small up market lodge is planned for the Meob area, where a landing strip has been constructed, and a small fishing camp and guided tours are planned for Conception Bay.

4.2.4. Karas Region

According to the *Regional Development Plan for the Karas Region*⁸⁵, for the majority of the region's poor, agriculture will remain an important industry to develop. There is potential to expand irrigation along the Orange River and to build dams in various locations, such as the Neckerdal Dam. Mining is considered essential for the region's short-term benefit yet it can be channelled into long-term conservation activities to protect the environment. The RDP thus proposes that aerial geophysical surveys be conducted and mineral prospecting promoted in the Lüderitz, Karasburg and Oranjemund constituencies. Lüderitz is a prime area for aquaculture development in Namibia and the RDP suggests that the region should promote private sector investment to exploit the mariculture potential of its coastal areas. The coastal mining area between Lüderitz and Oranjemund offers suitable sites and infrastructure for aquaculture. NAMDEB has entered in negotiations with interested companies to establish aquaculture operations near the Orange River Mouth outside of the mining security area and in the coastal ponds created during the mining process⁸⁶. In addition, a number of activities to facilitate industrial development in the region are suggested in the RDP that need investigation such as small scale fish factories and processing and packaging of guano in Lüderitz. Other developments in Lüderitz

⁸² Government of the Republic of Namibia, undated c. *Second National Development Plan (NDP2) 2001/2002 – 2005-2006: volume 2 regional development perspectives.* Windhoek, National Planning Commission, pp selected extracts.

⁸³ Enviro-Fish Africa, 2003. Namibian Mariculture Sub-Sector Scan. Walvis Bay Spatial Development Initiative. March 2003.

⁸⁴ Regional Council of Hardap, undated. *Regional Development Plan 2001/2002 2005/2006, Hardap Region*.Namibian Development Consultants. Mariental, pp selected extracts..

⁸⁵ Regional Council of Karas, undated., undated. *Regional Development Plan Karas Region Final Draft*. Namibian Development Consultants. Keetmanshoop, pp 1-162.

⁸⁶ Enviro-Fish Africa, 2003. Namibian Mariculture Sub-Sector Scan. Walvis Bay Spatial Development Initiative. March 2003.

include a new Waterfront with a station able to accommodate the Desert Express. The Karas region's location, level of infrastructure and scenery make it highly suitable for tourism development.

4.2.5. The role of RDPs in biodiversity conservation

The RDPs for the four coastal regions present at most a broad and generalised overview of the regions, but the description of the natural resources in the region (including in protected areas under MET administration) is insufficient to back up the outlining of the programmes. This gap reflects the Regional Councils' poor interaction with, and understanding of the coastal areas within their regions and indicates the need to assess and enhance the local bodies' understanding of the natural resources existent in their regions. Furthermore, the RDPs lack specificity in the strategies and programmes presented. The environmental programme, for instance, is very similar among the four regions (see Table 5) and so general that it can scarcely be useful. This may be the result of insufficient involvement of Regional Councils and local government bodies in the preparation of the RDPs. The consultant-led process to prepare the RDPs did not involve local players beyond gathering information through interviews. Furthermore, this process did not seize the opportunity to build regional capacities to engage in similar planning exercises in the future. Furthermore, there was not significant input from MET into the process of preparing the RDPs and there is sometimes conflict between the vision stated in the RDPs and the objectives of MET⁸⁷. Nevertheless, the RDPs make important references to regional environmental management and biodiversity conservation that can provide indications to the needs and activities that can be supported by NACOMA in each region.

Table 5 shows some activities and strategies that are presented in various chapters of the RDPs – environment, fisheries and marine resources, tourism, wildlife and mining – and an analysis of how these activities can be supported by NACOMA.

⁸⁷ Beytell B. Personal communication, Windhoek, 13 October 2004.

| Section in RDP | References in RDPs | Relevance to NACOMA |
|--------------------------------------|---|--|
| Section in RDP Environment | References in RDPs Kunene, Hardap and Karas Appoint skilled personnel able to contribute to land use planning Strengthen the human resource and financial capacities within the Regional Council and the Local Authorities Establish a Regional Environmental Fund in collaboration with international environmental organisations Provision of equipment and facilities to conduct studies and train the local communities in environmental conservation Establish a central regional information and research office; establish a regional environmental database for an integrated regional programme to monitor and manage the natural resources of the region Ongoing workshops and training to educate communities in the importance of the environment and sustainable utilisation Protect biotic diversity and maintain essential ecologic support systems through the establishment of conservancies Erongo Public education and awareness raising campaign on responsible behaviour in an ecologically sensitive environment Encourage eco-tourism and high-value low-volume tourism Stricter enforcement of existing legislation | Relevance to NACOMA NACOMA can help build local capacity in the Regional Councils for environmental management and biodiversity conservation and land use planning NACOMA can contribute to the progressive devolution of environmental functions to the Regional Councils in the context of decentralisation Future preparation of RDPs and planning processes can be supported by local staff skilled in both environment and development planning NACOMA can support the improvement and decentralisation of the environmental database, facilitate access to a database and support the preparation of coastal zone profiles Regional Councils can play a more effective role in channelling funding and support for community-based projects and CBNRM as a whole Erongo Region's experience and "lessons learned" in environmental management could be |
| | Enforcement of the national legislation on EIA | |
| Fisheries and marine resources | Kunene Develop regulations to prevent or minimise the effects of activities that are likely to seriously or irreversibly damage marine ecosystems Cooperate with MET and MAWRD in the management and conservation of resources and riverine and coastal environments Establish a policy on regional fisheries to enable effective management of stocks Erongo Diversification of products, e.g. aquaculture, mariculture and seaweed harvesting Further downstream processing of fish Hardan | NACOMA can help support marine resources protection on the regional level in line with MFMR and MET regulations NACOMA can support feasibility studies for new or expanded economic activities such as mariculture |

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| Section in RDP | References in RDPs | Relevance to NACOMA |
|----------------|--|---|
| | Formulate a policy on fisheries in this region, to manage the stock more effectively | |
| | Karas Mariculture and fish farming in coastal areas: seek expertise, conduct research and development work, conduct feasibility studies and prepare business plans for potential investors Freshwater aquaculture: research and development of activities alongside the Orange River, establishment of model demonstration projects of successful aquaculture models, training and extension service provision for aquaculture | |
| Tourism | Kunene Promote equitable indigenous cultural and local participation in the benefits derived from tourism projects Develop a regional promotion office within the Regional Council Employ qualified staff and generate income through membership fee contribution Erongo Introduction and development of tourism and related business management training/education primarily aimed at empowering emerging previously disadvantaged tourism operators Improve access to credit and other support services for new entrants into the tourism sector Encourage and promote community based tourism projects Hardap Effective cooperation in tourism between different components of government and between government and the private sector Develop tourist concessions within the Meob Conception area Develop ecotourism within the Namib Naukluft Park (including guided horse trails) Karas To develop a 4x4 route in the Sperrgebiet, to link Lüderitz with the Meob Conception area of the Sperrgebiet To compile a comprehensive tourism master plan for the Karas Region To effect an agreement with South Africa to open the border post at Sendlingsdrift To formalise the Sperrgebiet/Richtersveld cross border park To adopt a national policy through Cabinet that regulated the allocation of an annual quota of crayfish to the tourism industry at Lüderitz | NACOMA can support the review of the regions' natural resources and associated values for tourism through an economic assessment of the coast. It is also important to review the current framework for tourism development, including destination of tourism revenues NACOMA can support feasibility studies and implementation of new or improved tourism projects in the regions (through targeted investments) including some specified in the RDPs. NACOMA can promote local participation in tourism activities in protected areas along the coast through targeted investments. It is important to build on existing tourism plans (e.g. Hardap Region Tourism Plan) or prepare new tourism plans in line with the RDP, such as for the Karas Region. NACOMA can support environmental training of tourism operators and other players in the sector |

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| Section in RDP | References in RDPs | Relevance to NACOMA |
|----------------|---|---|
| Wildlife | Kunene Implement the MET Park and Neighbour Policy to improve relations, generate income and secure the long term status of the region's parks Karas Effective protection of the natural resource base of the region by adopting the land use plans compiled for the Karas Region To proclaim the Sperrgebiet as a Nature Reserve by 2005; this park can also be consolidated with the Namib Naukluft Park and possibly also with the Richtersveld to form a cross border park. | Regional Councils can play a more effective role in channelling funding and support for community-based projects and CBNRM as a whole NACOMA can support Regional Councils in planning and consolidating Transfrontier Conservation Areas (TFCA) linking coastal areas with protected areas further inland |
| Mining | Kunene Establish training programmes in all mining related aspects of environmental management Karas Reduce the potentially negative environmental impact of mining through effective environmental management: training programmes, awareness campaigns, Environmental Management Policy, training of miners Conduct aerial geophysical surveys, promote mineral prospecting, produce geological maps | NACOMA will build capacity in terms of environmental assessment and monitoring of mining activities |

4.3. Other development plans and initiatives

Some of the key plans and initiatives targeting the four coastal regions are described in this section, and their relevance to NACOMA is analysed in Table 6.

4.3.1. North West Tourism Plan

The *North West Tourism Plan (NWTP)* started by developing a vision and presenting an overview of tourism development in the Kunene and Erongo regions in the North West Tourism Master Plan (NWTMP). The Namibia North West Tourism Options Plan (NWTOP)⁸⁸ was developed in the second phase to identify key product development opportunities and management requirements at a conservancy level. The third phase, the Northwest Tourism Implementation Project (NWTIP) will involve implementation of plans outlined in Phase II and the development of standard operating procedures. The project provides broad zoning but more detailed tourism product-related zones for specific sites must be assessed in the light of acceptable developments or usage determined in the NWTMP, Conservancy Land Use Plans, and other land use plans and, when necessary, Environmental Impact Assessments (EIA).

4.3.2. NAMPORT Environmental Management System

In the Walvis Bay Harbour, NAMPORT is currently engaged in preparing its *Environmental Management System (EMS)* for certification according to the ISO 14001 standard. According to its publicly available environmental policy, NAMPORT is committed to environmental management and pollution prevention in its operations. The EMS will address major threats to the marine and coastal environment such as pollution resulting from tankers in outer anchorage and from washing vessels after painting. Other plans in the pipeline include the extension of the Port, the construction of a floating deck for boat repair and the rehabilitation of the Trans-Namib wash site⁸⁹.

4.3.3. Structure Plan for Walvis Bay

Walvis Bay is to become a national node because of the port and subsequently the Trans-Kalahari and Trans-Caprivi highways. The *Structure Plan for Walvis Bay*⁹⁰ provides the local authority with guidelines to manage and guide future development of the town in the long term, which should be revised every 12 years.

4.3.4. Swakopmund four-year strategy

In line with the four-year strategy for Swakopmund, key projects that are planned for the municipality include the development of a water front, upgrading of beach areas including the development of social nodes on the coast and river and creation of ablution facilities, upgrading of jetty, sand mining in the river mouth, rehabilitation of the garbage dump and creation of a new dumpsite, and the regulation of informal settlement⁹¹.

⁸⁸ NACOBTA, 2002. *Namibia North West Tourism Options Plan – Phase 2*. Windhoek: Ministry of Environment and Tourism, pp 1-90.

⁸⁹ Eiman, T., 2004. Personal communication, Walvis Bay, 16 August 2004.

⁹⁰ Stubenrauch Planning Consultants cc., 1999. A structure plan for Walvis Bay Volume 1: general discussions and findings. Stubenrauch Planning Consultants: Walvis Bay, pp selected extracts.

⁹¹ Lawrence, C., 2004. Personal communication, Swakopmund, 16 August 2004.

4.3.5. Hardap Region Tourism Development Plan

Tourism is identified in the RDP, as well as in the *Hardap Region Tourism Development Plan*⁹², as a preferred land use option in the region. While the 6 constituencies in the region are in the commercial farming area where title deed to all tourist developments can be obtained, a large portion of the Gibeon constituency – which extends to the coastline – falls within either communal land or within the Namib Desert and the Namib Naukluft Park. Developments within the park by the private sector normally take place on the basis of concessions. The Gibeon Constituency is the most popular tourist area within the Hardap Region and the tourism development plan recommends that a planning and coordination programme for the coastal areas be developed in the framework of the NACOMA project.

With the proposed development of the Sperrgebiet to the south and the number of up market lodges along the eastern boundary of the Namib Naukluft Park, there will be an increasing demand for access to the area from Lüderitz. A concession for a small up market lodge is planned for the Meob area, where a landing strip has been constructed, and a small fishing camp and guided tours are planned for Conception Bay. The tourism development plan recommends that access to the tourism industry be broadened, that particular attention be paid to rural areas, less developed areas in the Hardap Region, cultural attractions, and that increased participation of existing players in tourism development and inclusion of communities be sought.

4.3.6. Community Tourism Market Research for the South of Namibia

The *Community Tourism Market Research for the South of Namibia*⁹³ covered an inventory and analysis of the tourism industry in the Hardap and Karas Regions and its market, short field surveys to identify new community based attractions and an analysis of the potential of CBT. The Karas region's location, level of infrastructure and scenery make it highly suitable for tourism development. The Market Research highlights the potential of new attractions such as Lüderitz, the Ai-Ais / Richtersveld Transfrontier Park, the Sperrgebiet and the Orange River Mouth. Once Oranjemund is open to tourism traffic, the supporting function of Aus to tourism will become more significant. The potential exists to establish a cross-border park between the Sperrgebiet and the Richtersveld and at Orange River Mouth, thereby strengthening the TFCA. The scenic route suggested in the market study includes coastal attractions in the Sperrgebiet, such as Lüderitz, Elizabeth Bay, Pomona and Bogenfels, as well as Aus, the Ai-Ais / Richtersveld Transfrontier Park and Noordoewer. A cultural route on the western part of the region is also presented, which would have the purpose of introducing travellers to the Nama and Baster culture by visiting places of historic importance or where cultural events can be experienced. One option is also the development of some of the offshore islands for low impact, high quality tourism, possibly using Lüderitz as gateway⁹⁴.

4.3.7. Relevance to NACOMA of key development plans and initiatives

The plans and initiatives described above are analysed in Table 6 in terms of what activities or visions can be supported by the NACOMA Project.

⁹² Regional Council of Hardap and Hardap Tourism Board, 2003. Hardap Region Tourism Development Plan 2003. Mariental, pp 1-110.

⁹³ Stubenrauch Planning Consultants and DECOSA, 2003. *Community tourism market research for the South of Namibia*. Stubenrauch Planning Consultants and Development Consultants for Southern Africa, pp 1-144.

⁹⁴ McGann, J., F. Odendaal and L. Nakanuku, 2001. *Report on the integrated coastal zone workshop held in Swakopmund*, Namibia May 10-11, 2001, pp 1-59.

| Plans and initiatives | Relevance to NACOMA | |
|--|--|--|
| NAMPORT's Environmental Management System (EMS): Contains guidelines and responsibilities for environmental management of port operations. Accreditation process according to ISO 14001 ongoing. | • The experience of implementing an EMS in the Walvis Bay port should be shared with other industries in the region in an effort to prevent or mitigate environmental impacts. Clear environmental management procedures in these industries, even if not certified according to ISO 14001, would promote, at the minimum, compliance with existing regulations. In enhancing the framework for integrated coastal zone management, NACOMA through its multi-partner make-up can engage the private sector in adopting practices that do not contribute to biodiversity loss. | |
| <i>Municipal plans:</i> Structure plan for Walvis Bay and Swakopmund Four-year Strategy | If environmental tasks are to be decentralised, the preparation of structural and strategic plans at the municipal level should result from a process that involves both environmental officers and planners. The process of capacity building and institutional strengthening envisaged by NACOMA will strengthen Integrated Conservation and Development (ICD) approaches to planning | |
| <i>North West Tourism Plan (NWTP):</i> Tourism development plan for the Erongo and Kunene Regions, with a focus on communal lands outside the coastal protected areas. | The plan provides important indications on sustainable tourism development in communal areas that must be part of the common tourism development vision for each region and linked with tourism development in the protected areas of Skeleton Coast National Park and the National West Coast Recreation Area. NACOMA can play a key role in strengthening the link between the Skeleton Coast Park, Regional Councils and the conservancies adjacent to it. Recommendations included in the NWTOP are the affording of additional rights to conservancies to manage tourism in partnership with MET and the private sector, and the finalisation of the MET concession policy whereby conservancies must be involved in the ownership, management and benefit from all natural resource based activities. NACOMA can assist promising pilot projects with targeted investments. | |
| Hardap Region Tourism Development Plan: describe the role of the Hardap Regional Council and the Hardap Tourism Board in the development of tourism in the region. | The Plan has many aims in common with NACOMA, including the need to distribute biodiversity-based opportunities to local communities. NACOMA can make use of this plan, especially when it comes to selecting targeted investments. Capacity built in terms of planning will strengthen the implementation of the Plan. | |
| <i>Community Tourism Market Research for the</i> <i>South of Namibia:</i> Identifies new community- based attractions and analyses the potential of CBT. | This market research can provide a framework against which to evaluate the feasibility of proposed target investments for NACOMA support. | |

Conclusions

- 1. Future growth is expected in the tourism, fishing (including mariculture) and industrial sectors. Tourism is perceived by all four regions as a key sector for future development, targeting cultural as well as natural attractions. These future developments highlight the need to ensure that land use planning capacity is built in the Regional Councils and that appropriate policies and regulations are in place for these economic activities that protect the region's biological and cultural diversity. The legal report has concluded that economic activities related legislation (such as mining, tourism, aquaculture) makes insufficient provision for sound environmental management and conservation of biodiversity. Clear zoning is required to guide development decisions according to the region's varying sensitivity and potential.
- 2. All RDPs acknowledge the imperative to promote fairer benefit sharing from tourism, mining and fishing and support the involvement of communities in the use of coastal resources. However, mechanisms to do so are largely lacking. Positive developments in this respect will depend on progressive legal frameworks, including concession and other rights that are friendly to the people in the four coastal regions, and that can be supported by the NACOMA Project.
- 3. The process used to develop RDPs and their statutory power needs to be revised to ensure that their potential as key instruments to guide development planning in the regions is tapped. The current RDPs can nevertheless provide useful indications in terms of socio-economic trends in the region and resulting opportunities that can be supported by NACOMA. Furthermore, the NACOMA Project will progressively build capacity in the regions and line ministries so that the next RDP exercise can be truly participatory and useful.
- 4. The different structural and sectoral plans are poorly interlinked yet they also provide useful information that the NACOMA Project can build on. Examples are the Hardap Tourism Development Plan, which preparation followed a participatory process to reflect the views of the different stakeholders in the Hardap Region, and that can thus guide targeted investments in the region.

5. THREATS TO BIODIVERSITY AND ROOT CAUSES

5.1. Threats and potential interventions

This section provides an analysis of the threats and potential interventions in biodiversity hotspots along the coast of Namibia in light of potential socio-economic impacts resulting from current and expected developments (Section 4) in the biodiversity conservation structure in place (Section 3).

While the coastal areas of Namibia are still relatively pristine, the downscaling of mining and development of alternative livelihoods, rapid urbanisation and industrial development will in the future influence the environmental and socio-economic features of the coast. The pursuit of unsuitable economic activities in important biodiversity sites – either due to weak enforcement or inappropriate planning and zoning – may also have negative impacts on the coastal zone. At the same time, the proclamation or upgrading of protected areas and consequent strengthening of the TFCA can provide opportunities to mitigate impacts and tie coastal zone management and biodiversity conservation to local economic development.

Activities taking place along the coast that may impact on the coastal and marine environment and, consequently, on the coastal population, include growing settlements, mining, fish processing, salt refining and other industries, port authorities in Walvis Bay and Lüderitz, oil exploration activities in

offshore waters, uncontrolled fishing and aquaculture, uncontrolled tourism, and unplanned agriculture activities upstream from important river mouths. There are also plans underway for a harbour along the Kunene Region coast. Mining has left major marks on the environment and continues to threaten key biodiversity values in protected areas in the absence of adequate zoning and strict regulations. Most importantly, failure to develop alternative livelihoods during the mining era leads to poverty now that the industry is downscaling, which in turn will lead to people leaning more strongly on natural resources but not necessarily in sustainable ways.

All four coastal regions see the tourism sector as a priority area for regional development. While tourism activities can provide employment and an avenue for involving local communities in the region's economy through mainstream as well as Community Based Tourism (CBT), they are also likely to cause migration and increased movement of people through the regions to levels that can pose obstacles to effective management of natural and cultural resources. Mining areas that have previously been closed to public, such as the Sperrgebiet, are now perceived as potential tourism attractions that will be increasingly exploited under the new management plan. At the same time, biodiversity hotspots such as the coastal wetlands and offshore islands that have currently no conservation status may suffer from uncontrolled developments in the absence of adequate and enforced zoning and environmental restrictions.

Table 7 identifies some of the major threats each biodiversity hotspot, based on the development trends identified in Section 4 and the conservation efforts in place described in Section 3. Possible approaches to address these threats are also analysed in the table and provide indications for potential interventions and targeted investments to rehabilitate, maintain or improve those biodiversity hotspots.

| Biodiversity hotspot | Threats | Approaches to address threats and root causes and potential interventions |
|--|---|--|
| Kunene River Mouth | Uncontrolled activities in the area, such as mining, tourism and fishing | • The main root cause for the threats to the Kunene River Mouth is the lack of legal protection of this important wetland that has in the past been proposed for declaration as Ramsar Site. NACOMA can initiate and support the process to ensure the effective management and legal protection of this important biodiversity hotspot. |
| | Developments upstream such as the proposed Epupa Dam | • The Kunene River Mouth is not only important for its ecological functions but also key in the big picture of tri- frontier conservation that is unfolding. In collaboration with the BCLME Programme and the Governments of Angola and Namibia, NACOMA can facilitate the incorporation of this important site in the Kunene Region RDP. |
| Skeleton Coast National Park and adjacent conservancies | Uncontrolled fishing (recreational angling) Mining, the most affected area being Toscanini Off-road driving | The negative impacts in the Skeleton Coast Park appear to be based on unsuitable or uncontrolled land use options and weak enforcement, which are based on an old and outdated plan for the park. The new management plan that will be prepared will zone the area according to suitable land uses and will include a tourism development plan. NACOMA will contribute to building an integrated coastal zone management structure that links the different role players at the national and regional level, which can support a participatory process to prepare this management plan in the frameworks of biodiversity conservation and regional development. |
| | | With the lowest of the four coastal regions' HDI and a decreasing population due to unemployment, tourism in the Kunene Region can play a key role in creating jobs and promoting local economic development. NACOMA can support CBNRM projects (through targeted investments) that provide opportunities to the marginalised Himba people and wider population of the Kunene Region and not only to selected entities. The conservancies adjacent to the Park can play a key role in ensuring wider participation of the region's population in tourism activities in the Park. In the national context of growing tourism industry based on biodiversity values, it is equally important to ensure that the Tourism Policy makes provisions for equitable benefit sharing and for the reconciliation between conservation and development. |
| | | Due to the Park's importance in the emerging tri-frontier conservation area, NACOMA can support the consolidation of the transfrontier park and the sharing of "lessons learned" with the Greater !Gariep TFCA in southern coastal areas and the border with South Africa through, for example, exchange visits and sharing of information on Distance Learning and Information Sharing Tool (DLIST, on <u>www.dlist.org</u>). |
| National West Coast Tourist | Expected growth in the fishing industries and | This area has a lower protection status than a national park, which means that control of economic activities is less strict and has resulted in negative impacts. Due to its importance in terms of biodiversity conservation, MET has initiated a process to develop a new management plan and proclaim it a national park, which will |

Table 7 Threats to biodiversity conservation in the coastal regions and potential interventions

| Biodiversity hotspot | Threats | Approaches to address threats and root causes and potential interventions |
|------------------------------------|--|--|
| Recreation Area | aquaculture Offshore mining and oil drilling Uncontrolled growth of tourism | result in a new zoning of the area and stricter regulations for development and conservation. NACOMA can support a participatory process to prepare this management plan in the frameworks of biodiversity conservation and regional development. It is equally important to ensure adequate tourism, aquaculture, fishing and mining policies that help reconcile biodiversity conservation and development. |
| Walvis Bay Wetland | Heavy human and industrial activity, with industries expanding | The main root cause for the threats to the Walvis Bay Wetland is the lack of legal protection and effective zoning of this important Ramsar Site. NACOMA can initiate and support the process to ensure the effective management and legal protection of this important biodiversity hotspot. |
| | Extensive land reclamation for the salt works Excessive water exploitation | Responsibilities for coastal zone management should be clarified to ensure better coordination both between the different local planners and between the regional and national levels. NACOMA can support a participatory process to finalise the management plan that is currently under preparation |
| | Fish oil, fish processing wastes and ship-borne pollution from the harbour | It is equally important to ensure adequate tourism, aquaculture, fishing and mining policies that help reconcile biodiversity conservation and development. Furthermore, coastal planning should be inclusive to ensure that more opportunities are given to local communities such as the Topnaars. |
| | Tourism activities such as off-road driving, motorised and non-motorised vessels, and flying | |
| Cape Cross Seal Reserve | No major threats; potential shipping accidents and dumping of oil | NACOMA during the policy making process can highlight Cape Cross as a site of special significance along the Namibian coast. |
| Walvis Bay/ Swakopmund dunes | Off-road drivingLitteringImpact from minerals mining | • Effective control is required of activities taking place in this area, particularly recreation activities. NACOMA can provide support in the ongoing process of development of a management plan for the area. |
| Namib Naukluft | Of-road driving and excessive pedestrian pressure can | • Suitability of land use plan options and effective enforcement must be ensured for the Namib Naukluft Park |

| Biodiversity hotspot | Threats | Approaches to address threats and root causes and potential interventions |
|-------------------------|---|--|
| Park | destroy lichens | under the new management plan. It is also important to ensure that the under the forthcoming Tourism Policy equal opportunities are granted to communities and underprivileged communities, e.g. the Topnaars. NACOMA can fund targeted investments that support this principle. |
| Sandwich Harbour | Increasing impact from tourismCommercial trawling | More effective protection is needed for this area, especially at the level of coordination between MET and MFMR. NACOMA can help strengthening the structure for integrated coastal zone management and the links between MET and MFMR. |
| Lüderitz Lagoon | Pollution from the harbour and associated industrial development around the town Disturbance by vehicles Land reclamation Potential introduction of invasive alien invertebrates through mariculture development | The main root cause is the lack of legal protection and adequate zoning of the lagoon. NACOMA can initiate and support the process to ensure its effective management and legal protection. "Lessons learned" from the NAMPORT EMS in Wlavis Bay should be applied in this area to ensure best practice of industrial activities presently affecting the lagoon. Feasibility studies are required to assess the potential impact of mariculture activities on the lagoon, as well as their potential benefits to the local people. |
| Sperrgebiet | Impacts from prospecting and mining activities Increased movement and industrial and infrastructural developments in Lüderitz may impact on the environmentally sensitive environment around Proposed mariculture developments may result in impacts if not properly planned and controlled | NACOMA can support a participatory process to finalise the Sperrgebiet management plan and ensure its integration with the regional development planning process. It is of paramount importance to establish a link between the Sperrgebiet area and the wider population and this can be done through a centre in Lüderitz for information dissemination and promotion of visits to the coast. It is equally important to ensure adequate tourism, aquaculture, fishing and mining policies that help reconcile biodiversity conservation and development. Due to the Park's importance in the emerging tri-frontier conservation area, NACOMA can support the consolidation of the Greater !Gariep TFCA. |

| Biodiversity hotspot | Threats | Approaches to address threats and root causes and potential interventions |
|-------------------------|--|--|
| Islands | Currently under no major threat but uncontrolled promotion of tourism in offshore islands may adversely impact their rich biodiversity | The islands are key to biodiversity conservation but are currently not protected under the law. NACOMA can support the process of proclamation of the islands as MPAs by strengthening the structure for integrated coastal zone management and the links between MET and MFMR. |
| Orange River Mouth | Diamond mining | • The main root cause for the threats to the Orange River Mouth is the lack of legal protection of this important Ramsar Site and the lack of transfrontier management plan. NACOMA can initiate and support the process to ensure the effective management and legal protection of important biodiversity hotspots such as this wetland in the light of the forthcoming Wetlands Policy and NBSAP's <i>Action Plan for Sustainable Wetland Management</i> . |

5.2. Analysis of root causes

From the analysis of threats to the key biodiversity areas presented above, common issues can be identified that are perceived as root causes for biodiversity loss. These issues, as well as their relevance to the NACOMA Project, are described in this section and summarised in Table 8. The root causes for biodiversity loss and the opportunities to improve the coastal zone's biodiversity management framework represent key areas that can be supported by the NACOMA Project.

5.2.1. Poor awareness and lack of knowledge of coastal and marine values

Fundamental to support and involve key stakeholders in sustainable coastal management is an understanding of the value of biological and cultural diversity. Because most people in the coastal regions have had limited access to the coast, they cannot easily attach a value to it. In scientific terms, knowledge about species and ecosystems in Namibia is limited. The opening of the Sperrgebiet will provide a major break through for the study of the Succulent Karoo ecosystem. It is important to understand the natural resources that exist in terms of their latent value as well as their potential as economic generators. Assessing the economic value of the coast's biological and cultural assets can help engage stakeholders and raise funding for initiatives promoting conservation and sustainable natural resources use.

Increased knowledge about the regions' biodiversity would also assist the Regional Councils in their planning activities for conservation and wise use of natural resources. There is also a general lack of understanding of the intrinsic changes of the BCLME, which impact on natural resources availability and therefore natural resource-based economic activities⁹⁵. Diversification of economic activities rather than sole reliance on a specific livelihood would be positive for regional development, and therefore it is important that Regional Councils understand this natural variability.

Scientific research into the coast's biological and cultural values should be promoted and supported by the indigenous peoples' traditional knowledge. It is crucial to enhance the Regional Councils' understanding of the regions' natural resources, their potential and vulnerabilities and their capacity to integrate biodiversity concerns into regional planning. This will require coastal profiles to be drawn up also for the Kunene, Hardap and Karas regions, and then to harmonise the four coastal profiles into a single document (perhaps as four chapters with and overarching introduction and conclusion). A popular version of this profile needs to be produced for consumption by the general public and all levels of government, NGOs and communities. It will also require the economic assessment of the natural resources along the coast and their potential as economic generators. NACOMA targeted investments should focus on those key natural resources. Initial guidelines were developed during the NACOMA workshop held in Swakopmund in August 2004⁹⁶ for identifying projects, which should be finalised and adhered to as far as possible. Furthermore, it will require an awareness campaign to enhance understating of the coast and facilitate the participation of the coastal population in the coastal zone policy development process.

5.2.2. Unclear and centralised responsibilities

The coastline is mostly covered by protected areas and mining concessions and thus falls under the administration of MET, MME and MFMR. Regional Councils are not directly involved in the management of the parks or in concession allocation. The coastal zone – particularly in the Kunene and Karas regions – is an area that is unknown to the region's population and where local and regional authorities, let alone the communities, are excluded from planning and use of natural resources. The

⁹⁵ Barnard, P., 2004. Personal communication, Cape Town, 8 September 2004.

⁹⁶ Mufeti, T., F. Odendaal, R. Garcia, J. Oranje and I.Kauvee, 2004. *NACOMA Preparation Workshop – Workshop Proceedings*. Swakopmund, 11-13 August 2004.

issue was raised during the NACOMA Preparation Workshop whether the protected areas should be the responsibility of MET or devolved to regional authorities in the context of decentralisation.

Coordination between line ministries, namely MET, MFMR and MME, is also poor. The MFMR focuses on captures, often disregarding issues pertaining to degradation and conservation of the marine environment, which are perceived as MET's responsibility^{97 98}. According to the MET, this is slowly changing as MFMR is starting to give more importance to protection of the marine environment^{99 100}. The proclamation of the islands as MPAs and future concessions process where MET may have a role to play, and the proclamation of the Sperrgebiet that extend into the sea, are important issues that require better coordination between the two line ministries.

Coordination between local players is sometimes also lacking, as the example of Walvis Bay demonstrates – the Walvis Bay Lagoon is a biodiversity site that needs to be protected in face of development trends in the area, but where the roles of the municipality and other stakeholders are not clear¹⁰¹. A common vision, clear mandates and coordination are sometimes lacking between the different players involved in biodiversity conservation. The decentralisation process offers an avenue to define these roles and ensure that the required capacities are built at the different levels.

5.2.3. Uncoordinated land use planning

This report has shown that there is a myriad of plans and projects in place along the coast. While line ministries develop management plans and policies in their respective mandates, the Regional Councils prepare regional development plans. In addition, sectoral and structural plans exist for specific areas. Current coordination between different planning instruments is poor. Vision 2030 recognises that Namibia's parks and reserves face challenges such as a lack of linkages to local, regional and national planning and management systems, which sometimes leads to inappropriate development within protected areas. In turn, the process of preparing the RDPs has not sufficiently engaged MET, which is a key stakeholder in all four coastal regions. The involvement of MET in regional planning would contribute to clarify roles and change people's perspective about conservation and the importance and potential benefits of protected areas¹⁰².

Clearly defined zones need to be established for different economic development activities to ensure that current and future developments are in line with the potential and sensitivity of each different area¹⁰³. This coastal zoning should then form the basis for any form of regional development planning. The RDPs are key instruments that can provide the framework for regional planning and which all other land use and sectoral plans could refer to. As an example, the NWTOP suggests that tourism plans should be integrated into regional plans and other ministries and activities should take cognisance of these plans. The protected areas management plans should also be considered in the RDPs. There is thus scope in the NACOMA Project to revisit the legal power of RDPs and their role in coordinating planning at the different levels. The legal framework should be examined as to how RDPs can become more participative and how their role can be strengthened so that spatial developments plan in them can carry some weight. In addition, sectoral policies are still evolving, with the Tourism Policy and the

⁹⁷ Barnes, J., 2004. Personal communication, Windhoek, 18 August 2004.

⁹⁸ Maketo, C. S. and R. Brady, 2004. Personal communication, Swakopmund, 16 August 2004.

⁹⁹ Shikongo S., 2004. Personal communication, Windhoek, 12 October 2004.

¹⁰⁰ Beytell B. 2004. Personal communication, Windhoek, 13 October 2004.

¹⁰¹ Barnes, J., 2004. Personal communication, Windhoek, 18 August 2004.

¹⁰² Barnard, P., 2004. Personal communication, Cape Town, 8 September 2004.

¹⁰³ Barnes, J., 2004. Personal communication, Windhoek, 18 August 2004.

Aquaculture Policy still in draft forms for example¹⁰⁴. These policies should provide a framework in which sustainable development is ensured but moreover reconciled with biodiversity conservation.

Regional capacity and an enabling framework for coordination between the different sectors at the national and regional levels are, however, lacking. Geographic Information System (GIS) capacity has to be installed in the Regional Councils as well as an officer that understands conservation issues very well and has the ability to integrate them into the RDP and also muster the Regional Council machinery to the best advantage of biodiversity conservation.

5.2.4. Insufficient natural resource management and protection of some key biodiversity hotspots

Key biodiversity hotspots along the coastal zone of Namibia need to be protected by adequate and enforced legal status defining exactly what land use options are suitable. Some key biodiversity hotspots are not protected in the law and their use is thus unregulated in terms of access and activities. This is the case of the coastal wetlands of Walvis Bay, Orange River Mouth, and Kunene River Mouth, as well as offshore islands, undermining the protection of marine and coastal biodiversity.

New or revisited plans that may be required in the light of the forthcoming Parks and Wildlife Bill for key biodiversity hotspots, such as the coastal wetlands and offshore islands, provide ideal opportunities to promote planning processes that involve local people and regional authorities and are integrated with the national and regional visions. Particular effort should be put into getting effective conservation frameworks for them in place that also allows benefits to the local communities. NACOMA can support these planning processes by creating adequate conditions for preparatory assessments, broad regional consultations, participatory planning meetings, and wide dissemination of information.

Enforcement of regulations in protected areas needs to be strengthened and an assessment needs to be conducted to evaluate the impact and rehabilitation needs from uncontrolled activities in protected areas, such as mining in the Skeleton Coast and he Sperrgebiet. This will require the development of monitoring and evaluation capacity in the Regional Councils so they can play that important role effectively. Players on the ground such as tour operators can help control activities and ensure compliance with regulations.

5.2.5. <u>Insufficient public involvement on how the resources are used and inequitable benefit</u> sharing

The level of public participation in biodiversity management planning (for example in the preparation of protected area management plans) and in the use of natural resources in protected areas has been poor, despite the potential of local involvement to enhance the use of traditional knowledge to utilise and preserve biodiversity. This is the result of restricted access to the coast, on one hand, and of a widespread perception that coastal resources are controlled by the government and used only by a section of society, on the other hand. Vision 2030 highlights that communities generally see parks as land that only benefits government and foreign visitors. The concession framework is perceived by many people, including the Topnaars, as lacking transparency and benefiting only a small section of society. In fact, MET is often perceived by people as an obstacle to development¹⁰⁵. It has been suggested in the NACOMA preparation workshop that the allocation of permission for operations within proclaimed parks should be decided by Regional Councils in consultation with MET and the respective jurisdictionally responsible Ministries. The tourism concession framework for protected areas has been revised by MET.

Community participation outside protected areas can also help create positive spin-offs to the local people. MET's Parks and Neighbours policy can lead to more progressive negotiated agreements

¹⁰⁴ Please see "Review of Policy and Legislation Pertaining to Coastal Zone Management" Report.

¹⁰⁵ Braby, R., 2004. Personal communication, Swakopmund, 16 August 2004.

between the MET, private sector and adjacent communities. Mechanisms and incentives need to be strengthened for conserving biodiversity and biotic resources outside of protected areas, in the communal and private lands. In the tourism sector, most benefits go to a small group of people and the industry has remained largely untransformed. Fortunately, government institutions and tourism associations appear to be very aware of the need to involve communities in tourism and 'open up' the industry to the broader population¹⁰⁶. Some recommendations drawn in the NWTOP include the affording of additional rights to conservancies to manage tourism in partnership with MET and the private sector, and the finalisation of the MET concession policy whereby conservancies must be involved in the ownership, management and benefit from all natural resource based activities.

There is scope to investigate and strengthen mechanisms and incentives for natural resource use and conservation outside or bordering protected areas. The allocation of legal rights to communities to manage wildlife as well as other resources in conservancies is key to their survival. The NACOMA Project can address the Regional Councils' participation and support to community-based natural resources management by collaborating with the GEF-funded ICEMA Project and supporting projects and activities that have a strong and sustainable community focus. Strengthening the emerging TFCA by raising its conservation profile and promoting different types of conservation areas as economic generators can provide a framework and a vehicle for conservation and sustainable natural resource management activities. The Kunene and Orange River Mouths are very important because they can play an important role in consolidating the tri-frontier TFCA.

Conclusions

- 1. The coastal areas in Namibia and their unique biodiversity values face a number of threats. The present threats are rooted in an uncoordinated picture between biodiversity conservation and regional development. The key root causes of biodiversity loss identified in this report are:
 - **Poor awareness and lack of knowledge of coastal and marine values:** The most pressing threat to biodiversity conservation is the lack of understanding of the values of the coast and their potential for development.
 - Unclear and centralised responsibilities: Roles and mandates at the national and regional levels in terms of coastal zone management and biodiversity conservation not clearly defined in the context of the ongoing decentralisation process.
 - Uncoordinated land use planning: Poor and uncoordinated planning between the different sectors and between the national and regional levels make it impossible to reconcile conservation and development, and environment loses out first.
 - Insufficient natural resource management and protection of some key biodiversity hotspots: Lack of a comprehensive policy framework and inadequate legal protection of key biodiversity hotspots result in negative impacts encroaching with development.
 - Insufficient public input on how resources are used and inequitable benefit sharing: Poor level of public participation in biodiversity conservation and highly skewed patterns in terms of the use of natural resources and benefits to people resulted in detachment of the people from conservation objectives along the coast.

¹⁰⁶ Regional Council of Hardap and Hardap Tourism Board, 2003. *Hardap Region Tourism Development Plan 2003*. Mariental, pp 1-110.

- 2. NACOMA can play a key role in addressing the root causes by enhancing the understanding of the coastal natural resources and their potential as economic generators, involving key stakeholders in a coastal policy development process, building capacity and strengthening the institutional setup at
 - the regional level for biodiversity conservation, and supporting targeted investments that help reconcile biodiversity conservation and development.

6. RECOMMENDATIONS FOR NACOMA

6.1. The need for NACOMA

The threats to biodiversity loss and root causes identified in the previous section are pressing and need attention. The current efforts towards coastal biodiversity conservation and management, including other GEF-funded projects such as the Protected Areas Project and the ICEMA Project, each address some of the specific issues though in some degree of isolation. In the current context of decentralisation, these isolated efforts need to be "glued together" into a coherent interventions framework that will create an enabling environment for effective and decentralised coastal zone management and biodiversity conservation in Namibia. NACOMA was in fact conceived from the lack of an overall coastal zone management framework in Namibia and the gaps that exist in biodiversity conservation.

Integrated coastal zone management will promote the harmonisation of the biodiversity conservation and regional development planning frameworks described in Sections 3 and 4 respectively. Striving for effective and equitable protection and use of coastal resources, the NACOMA Project has three main components:

- 1) *Policy development and action planning for sustainable management of the Namib Coast:* This component will lead to a comprehensive coastal policy framework that will not only result in a higher level of understanding and appreciation of Namibia's coastal resources, including biodiversity, but also will provide the platform for legal review and the drafting of necessary legislation to fill the gaps and sometimes contradictions that currently exist.
- 2) Capacity building and institutional strengthening for conservation and management of the Namib Coast: This component will build the institutional capacity of the four Regional Councils in terms of environmental planning and management. Not only will Regional Councils be in a far better position to contribute to the policy making process, they will also be capacitated to apply the policy in their mandates relating to planning, development and conservation.
- 3) Targeted investments in biodiversity conservation and sustainable use in prioritised ecosystems: Finally, this component will help to "test drive" policy through the development of targeted investment pilot projects that will also help to reconcile biodiversity conservation and development. Through the execution of these projects capacity will be built at regional and local government level to implement other such projects outside and beyond the NACOMA intervention and to work in partnership with communities and other partners.

Table 8 shows how the three NACOMA Project Components can contribute to addressing the root causes of biodiversity loss. The table lists the root causes identified in the previous section and analyses how NACOMA can address them by complementing the current framework for biodiversity conservation and streamlining current or planned efforts. The contribution that each NACOMA Project Component can make is highlighted in the table.

| Root causes of biodiversity loss | COMPONENT 1: Policy and legal framework for coastal zone management | COMPONENT 2 Institutional strengthening and capacity building | COMPONENT 3 Targeted investments in biodiversity conservation |
|---|---|---|--|
| Poor awareness and lack of knowledge of coastal and marine values The most pressing threat to biodiversity conservation is the lack of understanding of the values of the coast and their potential for development. | Involvement of key stakeholders and the wider population in developing coastal zone policy Regional Coastal Profiles developed as well as an overarching one for all the Namibian coastal areas and popular versions for awareness raising | Training of Regional Councils on biodiversity conservation and natural resource management and boost MET regional staff | Information on biodiversity and explaining the value of well managed coastal areas Economic assessment of coastal resources and their potential as economic generators, which will provide a basis for selection of targeted investments Further research in biodiversity areas where there are information gaps |
| Unclear and centralised responsibilities Roles and mandates at the national and regional levels in terms of coastal zone management and biodiversity conservation not clearly defined in the context of the ongoing decentralisation process. | Identification of gaps in planning and conservation legislation Involvement of key coastal players in policy development process and in clarification of responsibilities | Institutional capacity building of Regional Councils, specifically in terms of environmental planning and management and building of partnerships for these purposes Enhanced integration between the different ministries and between them and the local government | Bringing tiers of government as well as other partners together through information sharing and implementation of targeted investment projects |
| Uncoordinated land use planning Poor and uncoordinated planning between the different sectors and between the national and regional levels make it impossible to reconcile conservation and development, and environment loses out first. | Revision of the role of RDPs, the process followed in producing them and their level of statutory power Coordination between sectoral policies with a view to reconcile development and conservation A policy that adequately addresses coastal issues and processes, including the access to resources, their use and conservation of biodiversity | Revision of RDP development process to integrate key stakeholders such as MET Improved and skilled structure at the regional level for land use planning and biodiversity conservation Capacity building of Regional Councils to play a key role in terms of coastal policy processes | Guidelines on how natural resources can be used in an environmentally sound manner, how benefits can be shared and "lessons learned" from pilot targeted investments projects |

| Table 8 | Root causes to biodiversity loss and potential | contribution of NACOMA Project Components |
|---------|--|---|
|---------|--|---|

| Root causes of biodiversity loss | COMPONENT 1: | COMPONENT 2 | COMPONENT 3 |
|---|---|--|--|
| | Policy and legal framework for coastal zone management | Institutional strengthening and capacity building | Targeted investments in biodiversity conservation |
| Insufficient natural resource management and protection of some key biodiversity hotspots Lack of a comprehensive policy framework and inadequate legal protection of key biodiversity hotspots result in negative impacts encroaching with development. | Design, manage and implement a comprehensive policy programme for Namibia Support to proclamation of key biodiversity hotspots currently lacking legal protection | Development of monitoring and evaluation capacity in the Regional Councils Capacity building and involvement in selection and monitoring process of targeted investments | Support to targeted investments that promote biodiversity conservation in or outside protected areas |
| Insufficient public input on how resources are used and inequitable benefit sharing Poor level of public participation in biodiversity conservation and highly skewed patterns in terms of the use of natural resources and benefits to people resulted in detachment of the people from conservation objectives along the coast. | Ensure that the concession framework for protected areas and sectoral policies promote equitable opportunities to the wider population Investigate and strengthen mechanisms and incentives for natural resource use and conservation outside or bordering protected areas | Enhanced integration between biodiversity conservation objectives and regional development vision Promoting participation of Regional Councils and communities in protected areas management development process Increased support to CBNRM activities in rural and communal areas | Targeted investments that support natural resources-based development open to the wider population including communities and NGOs Increased capacity of Regional Councils to steer natural resource management and conservation- related projects outside, and beyond NACOMA duration |

6.2. Recommendations for Targeted Investments

Recommendations for Components 1 and 2 are presented in the separate reports "*Review of Policy and Legislation Pertaining to Coastal Zone Management*" and "*Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process – Recommendations for Institutional Strengthening and Capacity Building*" respectively. This section focuses on NACOMA Component 3 and presents recommendations for activities to be undertaken to support targeted investments in biodiversity conservation in the coastal areas. The NACOMA project is expected to support targeted activities for "on the ground" biodiversity conservation. This financial support will target specific projects and plans of regional and national biodiversity importance, as well as pilot economic activities designed for sustainable resource, including feasibility studies and the design and implementation of pilot strategies to increase the flow of benefits from the sustainable use of coastal ecosystems, as long as they fall within the scope of the RDPs and the overall goal of the NACOMA Project. Activities are expected to vary according to the regions, and could also focus on transfrontier activities in the Karas and Kunene regions. Support can be made available to both local and regional governments and related institutions; national government ministries and agencies; NGOs and CBOs; traditional authorities; schools and communities; and individuals.

In order for NACOMA to make a meaningful contribution in the coastal areas through investments on the ground that address key natural resources and promote their conservation and wise use to be benefit of the coastal population, two sub-components are envisaged.

The first sub-component is "Biodiversity Information" to support land use planning and biodiversity conservation in the coastal areas. An information management system must be put in place in the Regional Councils that can continuously be updated with regional socio-economic and environmental information. Such a Regional Council-based system can be linked to, and be mutually supportive of existing databases such as ConInfo and InfoCom that exist at a national level but not necessarily in a format that is easily accessible to Regional Councils, user friendly and relevant to their planning needs, or updatable by the envisaged environmental and development planners¹⁰⁷. Each Regional Council will have its own information system that can be ArcView based, following examples in the Richtersveld south of the border and Tanzania. The purpose will be to provide updated information easily to planners and managers that they can use to make the right decisions and to provide spatial data in terms of development and conservation for the RDPs. If successful, this land information system can be expanded to other Regional Councils away from the coast. The different information systems at a regional level can collectively then make up the Namibia Land Information System (NALIS). This system can assist in the identification of priority areas for targeted investments (during and after NACOMA implementation) by crossing information on biodiversity values and regional development trends.

The second sub-component is "**Targeted Investments**" in biodiversity conservation and wise use according to priorities grounded on the above information. Targeted investments should not overlap with, but rather complement or support existing initiatives in protected areas and conservancies and should be relevant in the regional context by promoting the balance between biodiversity conservation and local economic development. It is important to note that this sub-component will necessarily include strong capacity building for the Regional Councils so they will be able to use the knowledge gained in projects outside and beyond the duration of NACOMA. Special effort should be made to use funds for Targeted Investments as leverage to unlock other funding, including funding from associated projects in the coastal areas.

¹⁰⁷ Please see Report entitled "Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process – Recommendations for Institutional Strengthening and Capacity Building" for more details about the envisaged environmental and development planners and the proposed NALIS.

Specific activities for each sub-component are described below and summarised in Table 9. These activities provide an idea of what is entailed under each sub-component and can inform the identification of more concrete steps during the preparation of the Project Brief. References are made to activities envisaged for the other two components and more information about those activities can be found in their respective reports.

6.2.1. Sub-component 1: Biodiversity Information

Activity 1.1 Review existing biodiversity information, sources of information and identify gaps and priorities

A wealth of information has been generated by different plans and initiatives targeting the coastal areas. However, this information is sometimes difficult to access, its potential for supporting land use planning being left untapped. There are also important information gaps in relation to biodiversity values along the coast. By building an integrated framework for coastal zone management, NACOMA can facilitate the identification of information sources, gaps and priorities. A role players workshop in the beginning of the project can be used for this purpose.

Activity 1.2 Establish a programme to gather biodiversity information and continuously feed it into NALIS

Once the information sources, gaps and priorities are identified, a programme can be established for information collection and storage. This activity will be centred at the Regional Councils and will progress as the capacity building programme outlined in the Report "Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process – Recommendations for Institutional Strengthening and Capacity Building" is implemented. The Namibia Land Information System (NALIS) is a spatial data storage structure that will be established in the coastal regions to support land use planning through the use of Geographic Information System (GIS). Information on biodiversity will also need to be fed into NALIS as it becomes available. NALIS will be able to reconcile relevant data from environmental and socio-economic databases, and will allow regional planners to update the regionally-based database as necessary.

Activity 1.3 Assess the economic value of coastal resources

An environmental economic analysis of the coastal areas is required to inform decision and policy makers that have an influence on the direction development will take in the Namibian coastal areas. An estimation of the economic values associated with different coastal resources is required to support land use planning and, in particular, the selection process of targeted investments to be made during and after NACOMA implementation. ToR for this activity have been drafted and will be implemented during the NACOMA Preparation phase.

Activity 1.4 Prepare/review coastal profiles for the four coastal regions

Socio-economic and biodiversity information pertaining to the four coastal areas can be synthesised into Coastal Profiles. A Coastal Profile for the Erongo Region already exists (see Section 3.2.6 of this report) and this activity can draw "lessons learned" from that process to review it and prepare Coastal Profiles for the other three regions with a similar structure. The process of developing these profiles will draw on the information contained in NALIS, use capacity built in the Regional Councils and include a system for continuously updating the profiles.

Activity 1.5 Disseminate and make information accessible to interested parties

The biodiversity information available should be made accessible to interested parties for the purposes of awareness raising and the coastal policy development process envisaged in for Component 1. The results of the economic study should be summarised in a popular version as well as in a PowerPoint presentation that can be used in policy making processes. A popular version of the coastal profiles should be prepared for wider dissemination, as well as an overarching report that presents the profile of the entire coast.

6.2.2. Sub-component 2: Targeted Investment Projects

Activity 2.1 Establish mechanism for selection, approval and monitoring of targeted investments

The mechanism that should be established for NACOMA targeted investments was discussed in the NACOMA Preparation Workshop¹⁰⁸ and will be refined during the drafting of the Project Brief (Figure 5). The structure composed of the Regional ICZMC (endorsing body) and the Targeted Investment Committee at the PMU (approving body) will be established. The Project Steering Committee will act as a periodic monitoring body.



Figure 5 Mechanism for Targeted Investments Proposals

An Environmental Management Plan (EMP) will be prepared that will ensure as far as possible that projects funded under the third component of NACOMA will in fact achieve their goal as far as possible. This Plan will consist of sets of criteria and guidelines that will describe the process, roles and responsibilities for identifying, preparing, reviewing, approving and supervising physical investments. ToR for this activity have been prepared during the preparation phase.

The mechanism for selection and monitoring of projects should be transparent and guided by the criteria developed in Activity 2.1. Projects should be in line with NACOMA's objectives and target biodiversity hotspots, as well as the national and regional vision for the coast. Activities that increase the flow of benefits from the sustainable use of coastal ecosystems and that promote community involvement and ownership should be encouraged. Community-based activities, especially those that encourage diversification of economic activities in the region, should also be encouraged, as well as joint ventures that involve the private sector and communities. Most importantly, targeted activities should demonstrate results on the ground, be cost-effective and ensure sustainability in the long term. Mechanisms should be created to ensure geographical distribution while at the same time addressing the key gaps and capitalising on the opportunities in biodiversity conservation that have been identified for each region. While the key factor in terms of funding distribution should be the benefits for biodiversity conservation, consideration should be taken of the fact that certain regions are more advanced in terms of knowledge, planning and management of natural resources. The capacity building programme outlined in Report "Analysis of the Institutional Capacity of the Namib Coast Regional Councils in Relation to the Decentralisation Process - Recommendations for Institutional Strengthening and Capacity Building" makes provisions for this uneven pattern.

¹⁰⁸ Mufeti, T., F. Odendaal, R. Garcia, J. Oranje and I.Kauvee, 2004. *NACOMA Preparation Workshop – Workshop Proceedings*. Swakopmund, 11-13 August 2004.

Activity 2.2 Support preparation of project profiles for on-site management of natural resources for biodiversity conservation

The Regional Councils, through the sub-ICZMCs, will assist proponents in selecting projects that respond to NACOMA's objectives, follow the guidelines developed, and will add to the region's ICD framework as described in the RDPs. The Regional Councils can play an extension services' role to which they are well-equipped by having development officers that can be trained through NACOMA. Such officers can provide assistance with proposal writing, budgeting, etc. This activity is interlinked with the programme for regional capacity building.

Activity 2.3 Support implementation of project profiles for on-site management of natural resources for biodiversity conservation and aftercare system

Project management for many Regional Councils staff and communities will be a new experience. On-site management is often where such projects fail. Trained Regional Council staff can play a supporting role and the regional ICZMCs will monitor implementation of projects.

Activity 2.4 Evaluate and share "lessons learned" and make them accessible

The results from the projects on the ground will be analysed. Their impact on biodiversity conservation as well as "lessons learned" in terms of structure for protection of biodiversity on the ground will be discussed. "Lessons learned" will be shared between Regional Councils, line ministries and other parties that were involved in implementation of targeted investments or were affected by them.

By and large the third component will help along biodiversity conservation by linking communities to natural resources in pilot projects that can be emulated outside the NACOMA Project and hopefully for a long time afterwards.

| Sub- | Activities | Priority* | Indicators |
|---------------------------------------|---|-----------|--|
| component | | | |
| 1. Biodiversity information | 1.1 Review existing biodiversity information, sources of information and identify gaps and priorities | 1 | Information on biodiversity identified and collated Information gaps identified and priorities for collection defined Links built with <i>ConInfo</i>, <i>InfoCom</i> and Namibia Atlas |
| | 1.2 Establish a programme to gather biodiversity information and continuously feed it into NALIS | 2 | Environmental Planner in Regional Councils trained on biodiversity information collection and storage in NALIS Communication and flow of information between Regional Councils and other sources of biodiversity information (e.g. MET) enhanced NALIS fed with biodiversity information by Environmental Planner |
| | 1.3 Assess the economic value of coastal resources (a preliminary assessment during the preparatory phase will be refined during implementation) | 1 | Enhanced understanding of the different natural resources in the coastal areas, their current uses, benefits and future potential Guidelines developed on where funding is best spent in the coastal areas Options identified for financing coastal area conservation and development |
| | 1.4 Prepare/review coastal profiles for the four coastal regions | 3 | Environmental and economic planners trained to develop coastal profiles and to access and produce information from NALIS Coastal Profile of Erongo Region revised Coastal Profiles of all four regions developed in a similar format Overarching Summary Profile for the entire Namib Coast produced, also as popularised versions |
| | 1.5 Disseminate and make information accessible to interested parties | 2 | Summary of economic assessment of coastal resources prepared and disseminated Popular version of overarching profile of the Namibia coast prepared and disseminated, and adapted for audio and visual media, including television Enhanced understanding and awareness of the importance of coastal biodiversity and their potential benefits as economic generators to the coastal population |
| 2. Targeted investment Projects | 2.1 Establish mechanism for selection, approval and monitoring of targeted investments | 1 | Process for identifying, preparing, reviewing, approving and supervising monetary investments defined EMP and guidelines and criteria defined for targeted investments to be supported by NACOMA for selection of projects Template documents drafted that can be used to solicit, receive, evaluate and |

| Table 9 | Activities recommended | d for NACOMA | Component 3 |
|---------|------------------------|--------------|--------------------|
|---------|------------------------|--------------|--------------------|

| Sub- | Activities | Priority* | Indicators |
|-----------|--|-----------|--|
| component | | | |
| | | | keep track of projects, as well as for project auditing |
| | | | List of projects not eligible for funding prepared |
| | 2.2 Support preparation of project profiles for on-site management of natural resources for biodiversity conservation | 3 | Environmental Planner and Development Planner in Regional Councils trained to assist potential proponents in selecting projects and writing proposals, also to other agencies |
| | | | Projects identified and proposals prepared in the four coastal regions |
| | 2.3 Support implementation of project profiles for on-site management of natural resources for biodiversity conservation and aftercare system | 4 | Environmental Planner in Regional Councils trained to assist monitoring and aftercare of projects implemented Projects for site-specific natural resources management ongoing in the four coastal regions |
| | | | "After care" provided through Development Officers in Regional Councils until projects are on a solid footing |
| | 2.4 Evaluate and share "lessons learned" and make them accessible | 5 | Results of on-site project assessed "Lessons learned" gathered and shared between the coastal regions, line ministries and other stakeholders involved in implementation or affected by the projects |

Priority: All activities are considered priority; the scale of 1(highest) to 5 (lowest) indicates "urgency" rather than absolute priority.

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ANNEX I: LIST OF KEY STAKEHOLDERS CONSULTED

| Name | Organisation | Position | Content of discussion | Meeting date |
|--------------|--------------------------|-------------------------------|--|--------------|
| BARNARD P. | National Botanical | The Global Invasive Species | Threats to biodiversity in Namibia and gaps in biodiversity | 08/Sep/2004 |
| | Institute (South Africa) | Programme | conservation | |
| BARNES J. | Design and Development | Director | Threats to biodiversity in Namibia and gaps in biodiversity | 18/Aug/2004 |
| | Services / MET | | conservation | |
| BEYTELL B. | Ministry of Environment | Director, Parks and Wildlife | Status of protected areas and future plans, tourism concession | 13/Oct/2004 |
| | and Tourism (MET) | | framework, conservancies, targeted investments | |
| BRABY R. | Ministry of Environment | Chief Warden – Wildlife | Gaps in biodiversity conservation; capacity at MET and Regional | 16/Aug/2004 |
| | and Tourism (MET) | Management (Erongo) | Councils; protected areas plans | |
| EIMAN T. | Namibian Ports | Environmental Control | Major environmental problems resulting from the port operation and | 17/Aug/2004 |
| | Authority (NAMPORT) | Officer | projects in place to address them, specifically the EMS in preparation | |
| GURIRAS C.W. | Erongo Regional | Regional Economic Planner | Regional Council's capacity, ongoing and required projects for | 16/Aug/2004 |
| | Council | | biodiversity conservation | |
| HERERO J. | Hardap Regional | Regional Economic Planner | Extent of coastal zone, Regional Council's capacity for environmental | 11/Oct/2004 |
| | Council | | planning, targeted investments and RDP process | |
| LAWRENCE C. | Swakopmund | GM – Health Services | Tasks of the municipality in environmental protection and | 16/Aug/2004 |
| | Municipality | | management | |
| LINDEQUE P. | Ministry of Environment | Director, Scientific Services | Planning systems, status of Ramsar sites, positioning of environmental | 15/Oct/2004 |
| | and Tourism (MET) | | planning capacity in Regional Councils | |
| MAKETO C.S. | Ministry of Environment | Chief Central Warden | Gaps in biodiversity conservation; capacity at MET and Regional | 16/Aug/2004 |
| | and Tourism (MET) | (Erongo) | Councils; protected areas plans | |
| O'TOOLE M. | BCLME Programme | Chief Technical Advisor | Threats to the marine environment; fishing opportunities for coastal | 07/Oct/2004 |
| | | | populations, MPAs | |
| PAXTON M. | "Strengthening the | Project Coordinator, UNDP | Scope and work plan of "Strengthening the System of National | 15/Oct/2004 |
| | System of National | | Protected Areas" Project | |
| | Protected Areas" Project | | | |
| SHIKONGO S. | Ministry of Environment | Acting Deputy Director | NBSAP process and implementation phase, priorities in terms of | 12/Oct/2004 |
| | and Tourism (MET) | | biodiversity conservation, targeted investments | 13/Oct/2004 |
| USHONA D. | Walvis Bay Municipality | Manager – Solid Waste & | Gaps in biodiversity conservation; Local Agenda 21 Project | 16/Aug/2004 |
| | | Environment | | |