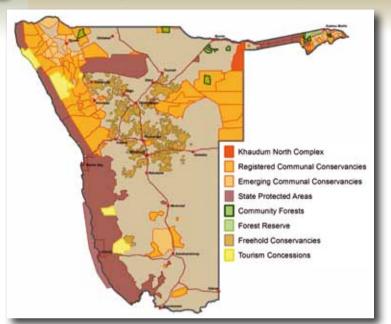
Living with wildlife -

the story of Khaudum North Complex





Living with wildlife – the story of KHAUDUM NORTH COMPLEX (KNC)



THE KHAUDUM NORTH COMPLEX

- is a cluster of resource management units including George Mukoya and Muduva Nyangana community conservation areas and Khaudum National Park
- has the mission to work together to rehabilitate and manage the area's fauna and flora, and guide the development of tourism and resource use for social, cultural and economic benefits through collaborative management of community conservation areas and national parks
- · aims to accomplish goals greater than any smaller unit could achieve
- embraces an area of high biodiversity, covers about 4,900 square kilometres and is home to around 4,000 people

Natural Resource Management Complexes

enable conservation and development over large areas...

MILESTONES AND SUCCESSES

- **1996** policy changes allow communal area residents to benefit from wildlife and tourism by forming conservancies
- **2001** the Forest Act is passed by Parliament
- 2005 the Forest Amendment Act is passed, amending the 2001 Act
- **2005** George Mukoya and Muduva Nyangana Conservancies are registered in September
- **2007** implementation of the Event Book monitoring system in the George Mukoya and Muduva Nyangana Conservancies
- 2008 a joint concession agreement allowing the conservancies to establish tourism facilities and operations in the Khaudum National Park is signed with the Ministry of Environment & Tourism (MET)



KHAUDUM NORTH COMPLEX offers an enchanting mix of



interesting cultures and dynamic communities committed to sustainability - people living in Khaudum North Complex share a common vision for managing their area and its resources



vast, diverse and spectacular landscapes – an immense Kalahari woodland wilderness... a healthy environment diversifies economic opportunities and drives economic growth



charismatic, free-roaming wildlife –
elephant, lion, leopard, African wild dog, diverse
plains game, abundant birdlife... wildlife generates
a variety of benefits for local people

people are living with wildlife, are managing natural resources wisely and are reaping the benefits...

A LITTLE HISTORY

Prior to Namibia's independence in 1990, communal area residents had few rights to use wildlife or other natural resources. Wild animals were often seen as a threat to crops, livestock and infrastructure, as well as community safety. The conservancy legislation passed in 1996 laid the foundation for a new approach to managing wildlife in communal areas, while the amendment of the Forest Act in 2005 paved the way for the sustainable use of communal forest resources. By forming conservancies and community forests, people in communal areas can now actively manage — and generate benefits from — wildlife, forest resources and related activities in their area, encouraging wildlife recoveries and environmental restoration. While conservancies and community forests are natural resource management structures, they are defined by social ties, as they unite groups of people with the common goal of managing their resources. Today, over 70 communal conservancies and 13 community forests embrace one in four rural Namibians, underlining a national commitment to both rural development and conservation.

As the human population between the Okavango River and the Khaudum National Park in north-eastern Namibia increased, wildlife numbers in the area began to decrease. In 2001, a socio-ecological survey was initiated by the Every River Has Its People Project to better understand the natural resource uses and needs of people living in the vicinity of the Okavango River in Namibia's Kavango Region. The survey provided the initial impetus for local communities to discuss the formation of conservancies, and a subsequent visioning exercise helped to define the conservancy borders. Working with the Ministry of Environment & Tourism, the Muduva Nyangana and George Mukoya Conservancies were registered in 2005, lying between the Khaudum National Park and the Okavango. Meetings held by the MET and the two conservancies to discuss tourism development led to the idea of a joint management forum, and with strong support from the Namibia Nature Foundation (NNF) the Khaudum North Complex was formed.



RESOURCES AND ATTRACTIONS

The Khaudum North Complex

is a living landscape...

The Kavango Region in north-eastern Namibia has a rich **cultural** heritage. People have been utilising the abundant resources of the Okavango River, which passes just to the north of the Khaudum North Complex, for many thousands of years. Over 1,000 year old pottery used to store grain was found near Rundu to the west of the complex and provides the earliest evidence of crop farming in Namibia, while

stone tools found in the area are much, much older still. Oral history indicates that the ancestors of most people now living in the Kavango Region moved down from the upper reaches of the Zambezi River several centuries

Khaudum National Park is unfenced where people go about their daily collaboration between parks and neighbours is

ago. After further, more localised movements by the different tribes, they settled along various parts of the Okavango and over time developed into the five major groups spread throughout the region today – the Gciriku, Shambyu, Kwangali, Mbunza and Mbukushu.

The Kalahari Basin holds one of the largest accumulations of sand in the world, stretching as a convoluted deposit from the Orange River in South Africa all the way to the Congo, and from the fringes of the Namibian escarpment to the highlands of Zimbabwe. The Khaudum North Complex lies on the edge of the basin in northeastern Namibia, and its **environment** is shaped by the dynamics of the greater Kalahari. Deep sands, deposited over the last 65 millions years, soak up rain and leave very few places with surface



and wildlife roams freely beyond the park and across the conservancies, livelihood activities — which embrace wildlife and forest resources... establishing new approaches to conservation and rural development

water. Linear dunes laid down in more arid periods thousands of years ago stretch across the area from north-west to south-east, creating an undulating landscape of dune ridges and valleys. There is little difference in elevation, however, and the landscape is generally rather flat, lying at a little over 1,000 metres above sea level. The sand does hold enough moisture and nutrients to support beautiful woodlands and shrublands. Large dry pans and broad drainage lines known locally as omurambas provide more fertile clay soils often underlain by layers of calcrete that create seasonal waterholes and support open grasslands. There are only very few areas of rocky ground in the entire complex, where the underlying geological formations reach the surface. Rain is highly variable from year to year and place to place, and average annual rainfall is less than 500 millimetres in the south of the complex, increasing to over 550 along the Okavango River.



eland, kudu, blue wildebeest, sable, Burchell's zebra, gemsbok, reedbuck, hartebeest, tsessebe, duiker, steenbok, warthog and ostrich all wander through this wilderness, stalked by a contingent of predators including lion, leopard, both spotted and brown hyaena, and jackal. Over 320 bird species have been recorded in the complex. Interesting species include ground hornbill, African hobby falcon, racket-tailed roller, sharp-tailed starling, black-faced babbler, rufous-bellied tit, coqui francolin, Bradfield's hornbill, coppery-tailed coucal, Senegal coucal, dark chanting goshawk, lizard buzzard and Dickinson's kestrel.

The Khaudum North Complex is rich in **forest resources** that are valuable to both people and wildlife. Most of the complex is covered by Kalahari woodlands at different densities, made up of a variety of tree species, depending on soil types, rainfall and the effects of fire.

churning though deep sand in low gear along a single track for hours and hours — to even reach Khaudum is a rite of passage, rewarded by the beauty, the wildlife, and the sense of freedom and adventure...

Khaudum National Park provides one of Namibia's greatest wilderness experiences

Since the establishment of conservancies, wildlife numbers in communal areas have rebounded from historic lows prior to independence. The Khaudum North Complex is home to a great diversity of large game, with the highest concentrations occurring in Khaudum National Park. Large numbers of elephant move freely throughout the area, and the complex is an important refuge for the rare roan antelope, as well as the endangered African wild dog. Giraffe,



Around the Khaudum North Complex... The complex lies along Namibia's border with Botswana. To the south, Khaudum National Park adjoins Nyae Nyae Conservancy, which in turn borders onto other conservancies

to the south and west, to create a huge contiguous conservation landscape. Khaudum also forms **Overall Diversity** a part of the Kavango of Indigenous Zambezi Transfrontier Terrestrial Fauna & Flora Conservation Area, which links Namibia, Angola, Low Diversity Zambia. Zimbabwe and Botswana in one of the largest conservation initiatives in the world.



LIVELIHOODS AND DEVELOPMENT

The Khaudum North Complex

facilitates joint management and enhances development...

The Khaudum North Complex has an approximate **population** of 4,000 residents, most of whom speak Rugciriku and Mbukushu. All Kavango language groups together today make up around ten percent of the national population of Namibia. Before boreholes provided permanent water in the Khaudum North Complex, most people lived further to the north, along the Okavango River. Livelihoods were based on a mixture of crop cultivation, livestock herding, fishing, hunting, veld foods and trade. Glass beads and other items found along the Okavango indicate that there has been active trading in the region for

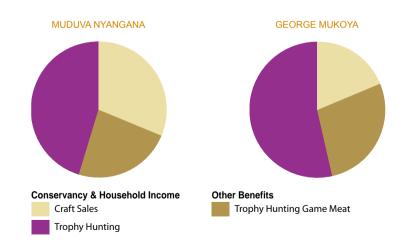


the Khaudum North Complex can facilitate information sharing and capacity building, leading to more coordinated activities and improved land use, in line with an overall vision that can benefit all residents of the area

centuries. The slave trade had a significant effect on the area until the early 1900s, as did raids by powerful neighbours. Attacks by Tswana warriors in 1893 had disastrous effects on the Gciriku, with 80 percent of able-bodied men having been killed. In 1910, the German colonial administration established a police station at Nkurenkuru, creating the first permanent colonial presence in the Kavango Region. During the South African administration of Namibia after World War 1, the Okavango Native Reserve was declared in 1937, and reshaped according to the recommendations of the Odendaal Commission of 1964.

Development in Namibia's communal areas was sorely neglected prior to independence and the Khaudum North Complex still lies in a largely forgotten corner of Namibia. There are no built-up roads in the entire complex and all transport is along sandy tracks. **Facilities and services** are limited – a clinic at Kandjara in George Mukoya Conservancy provides the only health facilities, while 11 primary schools and one combined school sprinkled throughout the complex provide access to education. A hospital at Nyangana and clinics at Katere, Shinyungwe and Mbambi along the Okavango River

provide further health facilities close to the conservancies. The regional capital, Rundu, reached along the Trans-Caprivi Highway (B8) passing just north of the complex, lies around 100 kilometres to the west and provides a greater range of facilities and services. A powerline was

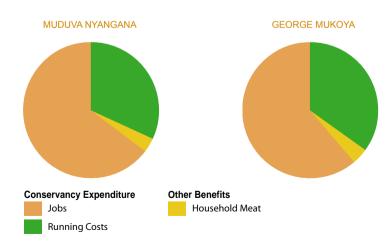


The **livelihood activities** of most people living in the complex are still based on livestock herding and crop cultivation, yet the ability to utilise natural resources through the formation of conservancies and community forests has diversified livelihood options for residents. The conservancies have created a number of new jobs in the area, and are facilitating a variety of new income options. Hunting is a central component of African culture, and trophy hunting is currently generating most conservancy income, and this is especially important in an area with limited tourism potential.

The concessions policy of the Ministry of Environment & Tourism provides park neighbours with opportunities to benefit from state protected areas. In 2008, George Mukoya and Muduva Nyangana

by enabling joint management and coordinated development, as well as effective marketing of the entire area and its resources, the Khaudum North Complex can maximise benefits from natural resources

constructed across the area in 2003 and connects some settlements to the national electricity grid. Water supply comes from boreholes, with groundwater often accessible less than 20 metres below the surface, but generally only in moderate supplies.



were awarded the rights to a tourism concession in Khaudum National Park and can in the future benefit from the development of new tourism facilities in the park through joint-venture agreements.

The use of forest resources, as building materials, firewood, a source of food and medicine, and now also as a source of direct income, is an important component of livelihoods in the complex. Thatching grass has become a particularly important resource and provides significant income. Craft production, which often also utilises forest resources, is another important source of income for many households. The conservancies provide a variety of other benefits, including the distribution of meat from trophy and own-use hunting to residents.

The conservancies were pilot sites for the Country Pilot Partnership for Integrated Sustainable Land Management Programme, a joint initiative involving a number of government ministries, development agencies and the NNF. The aim of the programme is to fight land degradation using integrated, cross-sectoral approaches, and to achieve environmental sustainability. In the conservancies, the focus included vegetable gardening and horticulture.

Benefits to conservancies and their members come from a variety of sources. Sources and amounts vary from year to year, depending on factors such as agreements with private sector partners, and market fluctuations.

The pie charts show the main benefit sources in 2010.

Conservancies spend money and provide community and individual benefits in various areas. Areas and amounts vary from year to year, depending on factors such as conservancy income and priorities.

The pie charts show the main expenditure and benefit areas in 2010.



MANAGING NATURAL RESOURCES

The Khaudum North Complex

enables coordinated management of a large area...

The **management structure** of the complex is headed by a Joint Management Committee consisting of representatives from each conservancy, the traditional authority, the national park, the Namibia Nature Foundation and private sector joint venture partners. A number of working groups focus on specific strategies within the complex, including tourism, forestry, wildlife, law enforcement, monitoring, sustainable harvesting and product development. The committee and working group team leaders draw support and technical advice from various government departments, and local and national NGOs. While



the Khaudum North Complex provides effective structures for coordinating the management of the natural resources of the overall area in a way that enhances development and ensures sustainability

wildlife resources fall under the mandate of the Ministry of Environment & Tourism (MET), the management of forest resources falls under the Ministry of Agriculture, Water & Forestry, thus requiring collaboration at various levels to ensure coordinated activities.

Activities... Joint monitoring is carried out by the conservancies together with the Ministry of Environment & Tourism (MET), and both plant and wildlife resources are monitored. Arduous fixed route patrols are carried out on foot through the largely waterless area and thick sand. Through the patrols, a variety of data is recorded as part of the Event Book monitoring system, including game sightings, human wildlife conflict, poaching incidents, game utilisation and any other data deemed important by the conservancies. The data is aggregated into monthly and annual reporting charts that facilitate adaptive management. Based on the data, the MET sets annual quotas for using wildlife, which enables the conservancies to carry out hunting. In Khaudum National Park, the MET conducts an annual game count, done as a simultaneous 'full moon count' at waterholes throughout the park. The complex is investigating approaches to extend the census to include

the conservancies. The strategic use of camera traps provides a further tool for monitoring wildlife and is often used for high value species. Joint anti-poaching patrols are also carried out by MET and conservancy staff to remove snares and follow up on poaching incidents.

The MET has translocated wildlife into the conservancies to boost the numbers of common impala, kudu, Burchell's zebra and eland north of the park. The park is only fenced along the Botswana border and game can move freely in and out of the conservancies. With support from the Integrated Community-Based Ecosystem Management (ICEMA) project of the MET, funded by the Global Environment Facility through the World Bank, several waterholes were developed north of the park border to allow wildlife to populate these areas on a permanent basis.

The conservancies strive to actively mitigate human wildlife conflicts and receive financial and logistical assistance from the MET to achieve this. The conservancies are investigating a variety of mitigation measures, including the use of 'chilli bombs' to deter elephants from crops. Through the National Policy on Human Wildlife Conflict Management, a system of providing financial offsets for losses

is being implemented in collaboration with government. The conservancies receive a fixed lump sum from the MET and are responsible for paying offsets to residents upon receipt of a claim. This must be accompanied by a report completed by game guards investigating the incident. All claims are reviewed by a panel before payments can be made.

Fire management also requires active collaboration amongst stakeholders. Fires can quickly spread over large areas, making it difficult for individual units to develop their own management systems. Fires often cross the border from Botswana, but many fires are also lit in the complex. While fire has moulded woodlands naturally over thousands of years, the high frequency of intense fires now set by people in winter causes severe degradation. Through early, controlled burning, smaller areas are burnt by cooler, less damaging fires.

Health Facility oShamavemb Supply Scheme Korokoshi Joint Venture Enterprise Nanazi District Road Kambuo - Trunk Road Track Registered Communal Conservancies Dumushi **National Parks** Management Zones Settlement, crops and livestock Wildlife Khaudum Camp Khaudum National Park Sikeretti Camp Nyae Nyae

O Ndiyona Kashira oShinyungw

Khaudum Complex

Main Town Village

Air Strip

a mix of modern technologies and traditional knowledge and skills is used in the Khaudum North Complex to enable healthy wildlife populations, a productive environment, and the effective management of natural resources



MUDUVA NYANGANA CONSERVANCY

GEORGE MUKOYA CONSERVANCY

Conservancies

empower rural people...

The conservancy is named after a former traditional chief of the Gciriku, who was a soldier and participated in the war against the German colonial forces. The conservancy has its office at the settlement of Livavi and is run by a management committee of ten members, and a number of office and field staff.

Settlement and livestock herding are highest in the northern two thirds of the conservancy, and the largest settlement of Korokosha is home to around 1,000 people. A straight cutline track bisects the conservancy from north to south, while smaller tracks join the various settlements with each other.

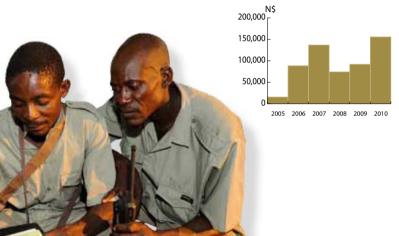
Muduva Nyangana and George Mukova Conservancies collaborate closely on various management activities, and also have shared agreements with the private sector to utilise both the trophy hunting and tourism resources of the area. The trophy hunting concession embraces both conservancies and currently provides the largest source of income. The tourism concession in Khaudum National Park, also shared by the conservancies, can generate significant benefits once the planned developments have been completed.

Craft sales and the harvesting of forest resources provide important income to individuals in the conservancy. Muduva Nyangana uses its income to pay staff salaries and cover conservancy running costs, as well as distributing cash payments to settlements and providing financial support to schools.

QUICK FACTS

Size: 615 square kilometres Approximate population: 2.000 Main languages: Rugciriku and Mbukushu Date of registration: September 2005

> Combined Cash Income and In-kind Benefits for Muduva Nyangana



facilitates access to diverse training and capacity building. empowers individuals, especially women, to actively take part in decision-making, as well as instilling a renewed sense of pride in cultural heritage

A CONSERVANCY IS...

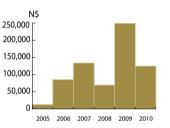
- a legally registered area with clearly defined borders and a constituted management body run by the community for the development of residents and the sustainable use of wildlife and tourism
- managed by a group elected to serve the interests of all its members
- a place where residents can add income from wildlife and tourism to traditional farming activities

QUICK FACTS

Main language: Rugciriku

Date of registration: September 2005

Combined Cash Income and In-kind Benefits for George Mukova



community conservation

Size: 486 square kilometres Approximate population: 2,000

- a place where wildlife populations increase as they are managed for productive gain
- a place where the value of the natural resources increases, enhancing the value of the land

Conservancies

... facilitate sustainability

George Mukoya was a famous elephant hunter, who was a particularly good shot and tracker. Elephants are still an important resource for the conservancy today. George Mukoya Conservancy has an office located at the settlement of Dosa and is run by a management committee of ten members, as well as a number of field and office staff.

Ten settlements are spread throughout the northern half of the conservancy, while the largely uninhabited south is a refuge for wildlife and acts as a buffer zone between the settled area and Khaudum National Park.

The trophy hunting concession shared with Muduva Nyangana generates most conservancy income, while the tourism concession in Khaudum holds great potential for future benefits. Through funding provided by the Integrated Community-Based Ecosystem Management (ICEMA) project of the MET, the two conservancies were able to invest in the developments in the park as joint-venture partners. The planned developments include the upgrading of the campsites at Khaudum and Sikeretti.

Residents of George Mukoya generate important income from a variety of forest resources, as well as from craft production. Bee keeping is being piloted at Dosa, while a vegetable gardening project at Dumushi could supply fresh produce to the tourism industry in the future. Conservancy income is used to cover running costs and pay staff salaries, while benefits to residents include cash payments distributed to settlements, as well as financial support provided to the schools in the area.

- a forum through which services and developments can be channelled and integrated
- zoned for multiple uses to minimise conflict and maximise the interests of all stakeholders



COMMUNITY FORESTRY

Community forests

maximise benefits from indigenous plants...

George Mukoya and Muduva Nyangana have revised their constitutions to incorporate the management of forest resources and have applied to register as community forests, with the same borders and management structures as the conservancies. While the registration is still pending, the practical management of forest resources is already being carried out. Forest resources have a central place in the daily lives of people living in the complex. Most homes are at least partially constructed with timber and thatching grass, and wood is used for cooking and heating in over 80 percent of homes. Many plants are used seasonally as a source of food or for medicinal purposes, and livestock requires grazing and browse.

Craft production has become an important source of income, and wood is used extensively to make carvings, while grass and palm leaves are harvested for making baskets. People also generate important income from thatching grass, devil's claw, Kalahari melon seed and large sourplum. Other valuable tree species include burkea and ushivi, which are used as construction materials; kiaat and Zambezi teak, which have significant commercial value as timber and are used for wood carvings; corky monkey orange, which has large edible fruits that are becoming an important cash crop sold outside the region; and manketti, which has a great variety of uses, including a high value oil extracted from the seeds.



community conservation enables a range of new livelihood options, including employment and income from tourism, craft production, the utilisation of forest resources, and other sales and services based on the sustainable use of natural resources



QUICK FACTS

Khaudum National Park

Size: 3,842 square kilometres

Date of proclamation: Game Reserve 1989; National Park 2007

KHAUDUM NATIONAL PARK

National parks

... conserve biodiversity and act as tourism draw cards

Khaudum National Park was proclaimed just prior to independence, with the primary aim of conserving the biodiversity and wilderness appeal of this remote corner of Namibia. 'It is wild, and we want to keep it like that.' said Dries Alberts, a former warden of the park.

Except for a 55 kilometre section in the west and the border with Botswana in the east, the park is unfenced, allowing wildlife to move freely across the communal areas to the north, west and south. The wilderness flair is enhanced by adventurous single tracks through thick sand that provide the only access, requiring a minimum of two reliable four-wheel drive vehicles to visit the park. Khaudum is reached either from the south along the D3315 from Tsumkwe in the Nyae Nyae Conservancy, or from Katere along the Trans Caprivi Highway (B8) in the north, via George Mukoya Conservancy. Permits to explore the park are available at the MET stations at Khaudum in the north and Sikeretti in the south. The simple camping facilities at the two sites are currently being upgraded.

Khaudum is famous for its large herds of elephant, and is great for spotting rare species such as roan, sable, tsessebe and African wild dog. The park also has healthy populations of all of Namibia's large mammalian carnivores. Scenic Kalahari woodlands are interspersed with broad omurambas and dotted with isolated baobab trees. Hides at artificial waterholes throughout the park provide excellent game viewing.

A COMMUNITY FOREST IS...

- a legally registered area with clearly defined borders run by the community according to a forest management plan that ensures the sustainable use of plant resources
- a place where forest resources are healthy and well managed, enabling a healthy overall environment
- a place where people can generate additional income from plant resources, enhancing livelihoods and supporting development
- a forum which can coordinate activities and developments, build capacities and enable integrated land use







CHALLENGES, OPPORTUNITIES...

Natural resource management complexes

enable diverse opportunities...

The Khaudum North Complex is evolving into a successful structure that enables the collaborative management of natural resources by local communities and government agencies, with support from NGOs. Collaboration has been facilitated by the conservancies, as they share some of the conservation objectives of the national park and have the legal mandate to manage the natural resources in their area on behalf of the local communities.

Challenges... The complex faces the challenge of developing and maintaining sound technical ability, management and infrastructure



coordinated initiatives that maximise the area's natural resource benefits, while mitigating the costs of living with wildlife for local people, and managing overarching issues such as fire and poaching, can facilitate a bright future for the Khaudum North Complex

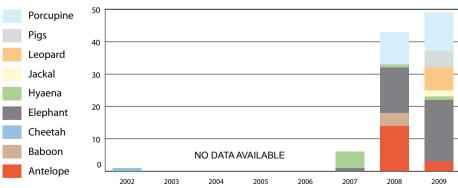
in each of the KNC's components. Collaborative management requires ongoing communication and cooperation amongst all stakeholders. The regional council, as well as all line ministries active in the area, need to be aware of plans and initiatives within the complex, so that these are not undermined by uncoordinated planning and actions.

While wildlife now creates direct benefits for local people, with the

result that game numbers are increasing, human wildlife conflicts create one of the main challenges of the complex and innovative measures need to be developed to counter losses caused by wildlife. Large herds of elephants are one of the main attractions of Khaudum National Park, but elephants are also responsible for most conflict incidents in the complex. The pachyderms often raid crops and may damage water infrastructure in attempts to reach drinking water. Other wildlife also causes crop damage, while predators are responsible for significant livestock losses. Yet wildlife is of great

value, both to the ecosystem and tourism, and people are more willing to live with wild animals if in the long run the benefits gained outweigh the costs.

Community forests and conservancies already cooperate in many areas, and further integration creates **opportunities** to unlock the full potential of all natural resources. In the Khaudum North Complex,



Human wildlife conflicts are monitored in conservancies using the Event Book and clearly indicate the main conflict species.

The chart shows the combined conflict incidents from both conservancies.



... AND THE FUTURE

this sector can strengthen the area's reputation as one of Namibia's primary wilderness destinations.

Plans... There are plans to upgrade the camping facilities and develop some fixed accommodation in Khaudum National Park. The developments will significantly improve accommodation options in Khaudum while maintaining its wilderness flair, and importantly will generate direct benefits for the neighbouring communities. The improved facilities will also strengthen the four-wheel drive tourism route to Caprivi, drawing more visitors into the area.

Trophy hunting continues to generate the largest portion of income for the two conservancies, and also creates important employment. There are plans to work together with the hunting operator in a joint

the Khaudum National Park is one of Namibia's foremost wilderness destinations, and the Khaudum North Complex is the ideal structure to enable its coordinated, sustainable development

such integration can be facilitated from the outset, as the community forests currently applying for registration share common boundaries and the same management structures as the conservancies. The Khaudum North Complex is rich in forest resources, and maximising benefits from them can diversify local livelihoods. The tourism potential of the complex is still largely untapped, and strategic development of



venture agreement to upgrade the hunting camp to high-quality lodge accommodation en route to Kaudum National Park, which could then generate further tourism benefits for the communities.



Come to the Khaudum North Complex — be part of the future...

