THE RICHTERSVELD CULTURAL AND BOTANICAL LANDSCAPE

APPLICATION FOR INCLUSION ON THE WORLD HERITAGE LIST

January, 2006

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List of Abbreviations

CBO	Community Based Organization
CPA	Richtersveld Sida !hub Community Property Association
DEA&T	Department of Environmental Affairs and Tourism (South Africa)
DLIST	Distance Learning and Information Sharing Tool
DMP	Disaster Management Plan
GEF	Global Environment Facility
ICOMOS	International Council on Monuments and Sites
IDP	Integrated Development Plan
IUCN	The World Conservation Union
LME	Large Marine Ecosystem
MoU	Memorandum of Understanding
NGO	Non-governmental Organization
NHRA	National Heritage Resources Act
NORAD	Norwegian Agency for Development Cooperation
ORM	Orange River Mouth
RNP	Richtersveld National Park
SANParks	South African National Parks
SMME	Small, Medium and Micro Enterprise
TFCA	Transfrontier Conservation Area
TFP	Transfrontier Park
TIC	Tourism Information Centre
UNESCO	United Nations Educational, Scientific and Cultural Organisation
VOC	Dutch East India Company
WHS	World Heritage Site

Executive Summary

State Party: Republic of South Africa

Province: Northern Cape

Name of Property The Richtersveld Cultural and Botanical Landscape

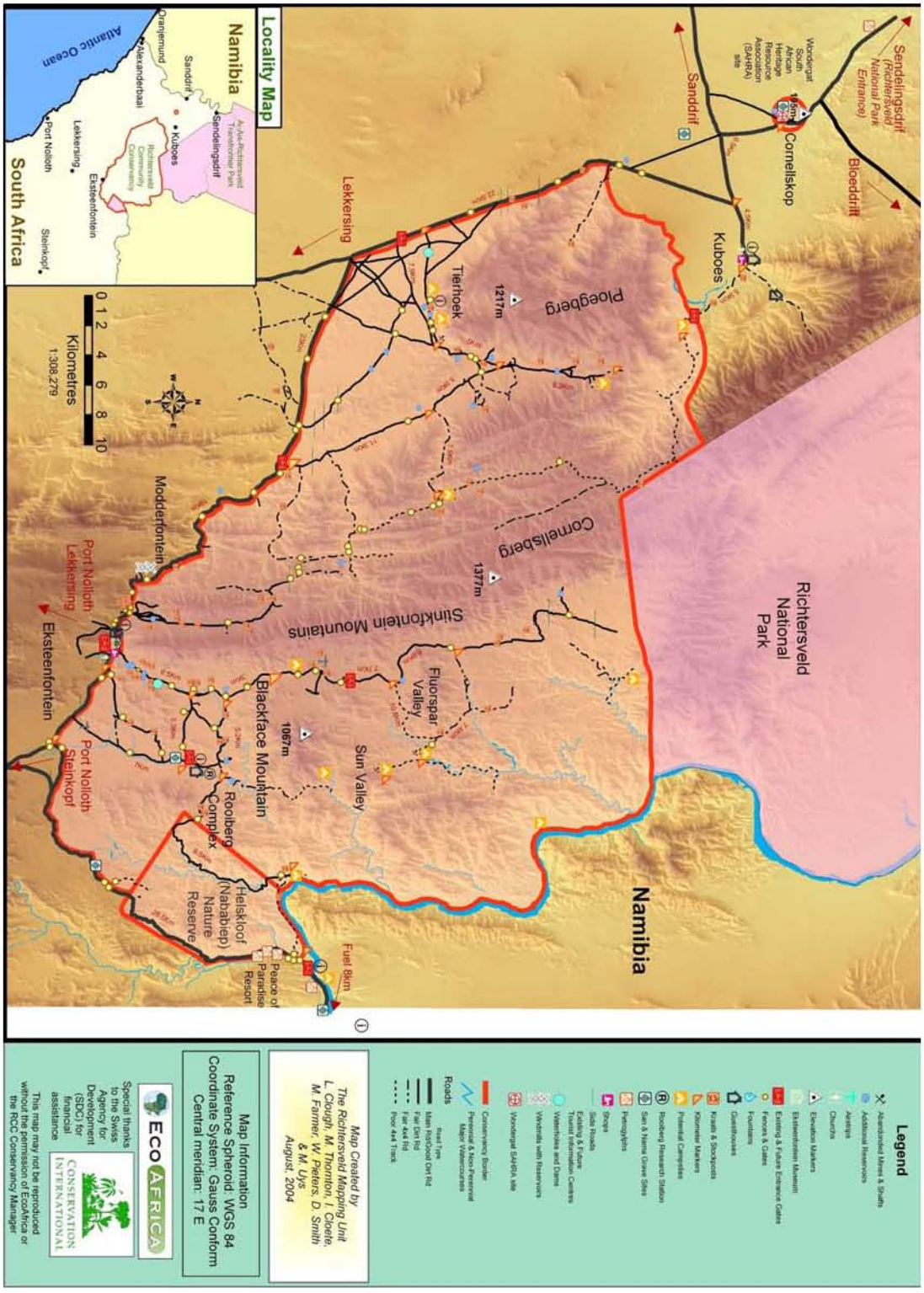
Geographic Coordinates to the nearest second:

Approximate Centre of World Heritage Site: Cornellsberg Mountain:
28 36’ 00’’ S
17 12’ 14’’ E

Textual description of the boundaries of the nominated property

The Richtersveld Community Conservancy is located in the northwestern corner of the Republic of South Africa, within the Northern Cape Province. It is 160,000 hectares and is bordered to the north by the Richtersveld National Park, to the east by the Helskloof (Nababiep) Provincial Nature Reserve and to the south by the Richtersveld Communal Grazing Area. On its northeast border lies the Orange River which serves as the border with Namibia.

Map of the Nominated Property: Richtersveld Community Conservancy (outlined in Red)



Statement of Outstanding Universal Value

The Richtersveld has the highest botanical diversity and rates of endemism of any arid region representing more succulent flora than any other part of the world with plants exhibiting unique ecological techniques to enable them to survive in such an extreme environment, and a cultural landscape encompassing the two thousand year old transhumance pastoral livelihood of the Nama people and their sustainable use of and relationship with the environment of the Succulent Karoo Biodiversity Hotspot.

These factors together converge to present a unique environment of one of the world's most important sites for the conservation and study of succulent flora and the preservation of a livelihood which was once a common way of life throughout the world.

Justification

The recognition of the Richtersveld Community Conservancy's biological importance by international conservation bodies is wide and strong. The Succulent Karoo, of which the Richtersveld Community Conservancy is a core area, is one of only 34 Biodiversity Hotspots, as recognized by Conservation International. It is one of only two to exist in a desert. It is one of only two to be based entirely on high floral richness, endemism and degree of threat. It is a cold mountain desert adorned with thousands of succulents which, under spring blossom, turn an arid expanse into a multi-coloured wonder. Endemic to the Richtersveld, almost all of the world's population of *Aloe pillansii,* a flagship species for the region growing up to ten metres high, exists inside of the Richtersveld Community Conservancy. It is a threatened species and one of few species believed to be decreasing as a direct result of climate change. But the most significant ecological feature of the Richtersveld is its succulent species numbers and endemism. It is well documented that the Gariep Centre of Plant Endemism has the richest variety of succulent plants (primarily the *Mesembryanthmaceae* family) on earth and the Conservancy is considered a central part of the Centre. 60% are known to be endemic just to the region, and estimates of species numbers and endemism rates are regarded as

conservative, since new species are being found and large areas remain unstudied. In years to come, it is certain that new species will be uncovered. The Gariep Centre and the Richtersveld are also considered important to science in regard to evolutionary processes, with many succulent groups in states of active speciation.

From a cultural standpoint, the Richtersveld Community Conservancy is the last refuge of Nama people living a transhumance lifestyle. This occurs no place else in South Africa. It is also one of the few places in South Africa where the language of Nama remains widely spoken. It is the only place remaining where the Nama still reside in intricately constructed portable rush domehuts called |*haru oms*. It is also the only place left in South Africa where pastoral people reside in large communal traditional lands. What exists in the Richtersveld Community Conservancy is an outstanding representation of human interrelationships with the environment, in this case a fiercely harsh environment, and a lasting testimony to a way of life – transhumance. The Nama's pastoralist lifestyle is one of the earliest forms of livelihood where humans have control over the environment. The traditional management systems have over two thousand years conserved through sustainable use of the grazing resource a large area of Succulent Karoo vegetation.

The details of these attributes – cultural and natural – of the Richtersveld Community Conservancy are highlighted in numerous documents pertaining to "filling the gaps" in the World Heritage list. These documents, by IUCN, ICOMOS and UNEP, reveal the Richtersveld Community Conservancy as a landscape, both naturally and culturally, which has several characteristics which are underrepresented in the current World Heritage list, and support the justification of this nomination.

Criteria under which the property is nominated

Cultural criterion (iv)

The landscape of seasonal movements spanning back millennia illustrates effectively a period of time when the environment, the climate and the seasons determined largely where humans lived and how they lived. This has not changed

for the Nama who today must move home, livestock and family from high-country winter grazing areas to lower summer areas. The ancient gravesites, relicts of former livestock posts, migration trails, wells, petroglyphs and legend and oral myth attached to mountains, sinkholes, springs and, not least, the !Gariep (Orange) River all make up a cultural landscape that has been active for two thousand years. The Cultural Landscape of the Richtersveld demonstrates well the ability of the Nama to maintain traditional pastoral livelihoods without adversely impacting on the environment. This is especially important, perhaps more so than in other regions, in light of the status of their environment as a Biodiversity Hotspot. Additionally, the |*haru oms* is a form of architecture not reproduced by any other group of people except the Nama. Recognized as one of 100 endangered sites by World Monuments Watch, the |*haru oms* requires an intricate construction process and indigenous knowledge which has been largely lost in other Nama areas outside of the Richtersveld. The |*haru oms* in the Richtersveld Community Conservancy remain a part of the semi-nomadic lifestyle of the Nama pastoralists.

Cultural criterion (v)

As ancestors of the earliest inhabitants of southern Africa, the Nama of the Richtersveld have maintained a cultural tradition that is wholly unique in its customs and lifestyle. The Nama traditional transhumance land use of pastoralism bear the only surviving testimony to a way of life that formerly spanned amongst their KhoiKhoi ancestors from the Cape of Good Hope to current day Namibia and amongst other African peoples throughout the country. Despite the survival of this land use and age-old relationship with the environment, the Nama have faced and continue to face enormous pressure. Colonialism and institutionalized racism of Apartheid sought to eradicate cultural identity and tradition, often denouncing Nama ways as primitive and worthless. Today, the Nama identity and tradition endure and are seen most strongly in the Richtersveld Community Conservancy.

Natural criterion (ix)

An unusual convergence of several extreme environmental factors in the Richtersveld Community Conservancy area has resulted in biodiversity that has

evolved specifically in order to survive. Flora, in particular, have developed a wide variety of species and families which have speciated to exist in highly specific microenvironments. The methods used by plants for conserving water, shielding from the sun and protecting from high winds are seen in the physiology, range and relationship between species and their specific microenvironment. In some species such as the *Aloe dichotoma* the population densities differ between summer and winter rainfall zones. The Conservancy exists in the transition between these two rainfall zones and as such is a living laboratory of the *Aloe dichotoma*, as well as the *Aloe pillansii*, a near endemic to the Conservancy, and many other species.

Natural criterion (x)

The Succulent Karoo Region is a Biodiversity Hotspot, due to its extraordinary diversity and endemism rates and is home to an estimated 6,356 species of plants of which 2,439 are endemic. A 38.4% endemism rate is one of the highest in the world; 40% of the world's 10,000 species of succulents are found in the Succulent Karoo; and over 63 genera of the Mesembryanthemaceae are endemic to the Succulent Karoo Region. The Richtersveld Community Conservancy represents the core of the biome's Gariep Centre, which regarded as the richest with over 2700 species and with 80% of its endemics being succulents. The Richtersveld Community Conservancy provides a transition between the summer and winter rainfall areas and a diversity of environments including mountains, quartz fields and valleys enabling a wide range of species to exist. It also serves as the refuge for nearly all of the known specimens of *Aloe pillansii*, a large, impressive and protected plant thought to be decreasing in numbers as a result of climate change.

Name and contact information of official local institution/agency

Richtersveld Community Conservancy

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1. Identification of the Property

1.a. Country: Republic of South Africa

1.b. Province: Northern Cape

1.c. Name of Property The Richtersveld Cultural and Botanical Landscape

1.d. Geographic Coordinates to the nearest second:

Approximate Centre of World Heritage Site: Cornellsberg Mountain:
28 36' 00'' S
17 12' 14'' E

1.e. Maps (please refer to Appendix A)

Map 1: Map of Proposed Site within Republic of South Africa
Map 2: 1:250,000 Topographical (ref:. 2816 Alexander Bay) demarcating Core Area and Buffer Zones

Key to Map 2 (Topographic Map)

1. Richtersveld Community Conservancy: Core Area
2. Richtersveld National Park: Buffer Zone
3. Nababiep (Helskloof) Provincial Nature Reserve: Buffer Zone
4. Emerging Vioolsdrif Community Conservancy: Buffer Zone
5. Communal Grazing Area: Buffer Zone

Map 3: Map of Richtersveld Community Conservancy
Map 4: Map of Greater !Gariep Transfrontier Conservation Area
Map 5: Map of Richtersveld Protected Areas

1.f. Area of Nominated Property (ha.) and Proposed Buffer Zones (ha.)

Area of nominated property:

Richtersveld Community Conservancy:	160,000 ha, approximately

Area of buffer zones:

Helskloof (Nababiep) Provincial Game Reserve:	10,980 ha
Richtersveld National Park:	162,445 ha
Richtersveld Communal Grazing Areas:	225,000 ha, approximately

The Core Area proposed as a World Heritage Site is the land enclosed within the Richtersveld Community Conservancy. The area is buffered by provincially and nationally gazetted protected areas, the Orange River (also an international border with Namibia) and the Richtersveld communal land, which is mostly grazing area. The Core Area is also buffered by significant physical features including the largely impenetrable Vandersterrberg Mountains (between the Core Area and the Richtersveld National Park), the deep canyons of the Orange River and the rugged mountains of the Nababiep (Helskloof) Provincial Nature Reserve.

The high cliff walls on the Namibian side of the Orange River form a formidable barrier and buffer to the Conservancy

2. Description

2.a. Description of Property

General Description of the Property

The Richtersveld Community Conservancy is South Africa's first communal protected area and its most remote wilderness. It is a cold mountain desert of enormous scenic value and diverse and vivid geological formations of immense value to the heritage of the country and continent of Africa. However, the attributes which are of outstanding *universal* value and the focus of this nomination are its high diversity and endemism of plants, particularly succulents; its unique Nama culture, architecture and traditions; and its rich cultural landscape of semi-nomadic pastoralism representing one of the last transhumance[1] cultures left in Southern Africa.

2.a.i. Location

Core Area: Richtersveld Community Conservancy

The Richtersveld Community Conservancy (hereafter referred to as 'the Conservancy') is a 160,000 hectare communally-owned and managed protected area located in the northwestern corner of South Africa along the border of Namibia. This is South Africa's most sparsely populated and vastest unspoilt wilderness region. The Conservancy is situated in the mountainous region south of the clearly visible giant bend of the Lower Orange River (known as the !Gariep River[2] before colonial times, and a name that is progressively being re-instated) on

[1] The term, "transhumance" is used throughout the document to describe the lifestyles and livelihood patterns of the Nama herders. Semi-nomadic pastoralism can also be used to describe the seasonal movements of the Nama people with their herds of goats and sheep. However, the set seasonal patterns associated with the Nama movements between summer and winter grazing areas and the geographic scale associated with their movements are felt by the authors as best termed as transhumance.

[2] '!Gariep' means 'Big River' in the language of the Nama, the first people who have settled in the region thousands of years ago. However, for the purposes of this document the name Orange River is used as that is the name that reviewers will find on maps available anywhere in the world.

its last stretch before it reaches the Atlantic Ocean. The Conservancy falls under the local governmental jurisdictions of the Richtersveld Municipality, the district jurisdiction known as the Namakwa District and finally, the Northern Cape Provincial Government. There are seven towns in the entire municipal area, and two of the smallest towns (Kuboes and Eksteenfontein) border the Conservancy on the west and south, respectively.

Access to the Conservancy is on dirt roads, and approximately two hours from the main towns of the region: Port Nolloth (municipal headquarters) in the west and Springbok to the southeast. The interior part of the Conservancy is accessible by remote dirt roads and tracks, many of them only suitable for 4x4 vehicles. The landscape is rugged and many parts of the Conservancy remain unreachable by vehicle and in many places tracks have become impassable. The rugged landscape, remoteness from population centres and the absence of diamond deposits are what have preserved the Conservancy as South Africa's most remote wilderness. The only people living in the Conservancy are semi-nomadic sheep and goat herders who live a transhumance lifestyle of moving with herds in between seasonal grazing areas.

Please refer to the Map of the Richtersveld Community Conservancy (Map 3) and Topographical Map (Map 2) in Appendix A.

2.a.ii. Buffer Zones

The Conservancy is directly bordered by the following areas:

Northern Buffer: Richtersveld National Park

The Richtersveld National Park (RNP) boundary serves as the long northern border of the Conservancy. The boundary between the two is the most inaccessible area for both the RNP and the Conservancy and a largely impenetrable area of steep and rugged mountains. There are no roads into the area and it is used occasionally by semi-nomadic herders.

Eastern Buffer: Nababiep (Helskloof) Provincial Nature Reserve and the Orange River (and international border with Namibia)

The Nababiep Provincial Nature Reserve is a rugged, uninhabited reserve of stark mountains and the deep Helskloof Canyon. The mountains extend eastwards beyond the reserve into the ERF 226, a very large property currently under the jurisdiction of the Department of Public Works but under discussion to be handed over to the Vioolsdrif Community for the creation of the Vioolsdrift Community Conservancy, largely modelled on the Richtersveld Community Conservancy. It is land unsuitable for most land uses except conservation and limited livestock herding and has only a few tracks in it that are suitable for 4x4 vehicles.

The Orange River boundary is one of the most remote stretches of Orange River along its entire course from Lesotho to the Atlantic Ocean. There is no human habitation along this stretch of the river and most parts of the river remain unreachable from both sides because of the high mountain ranges that run along the river. There is currently one road which can access the river from the Conservancy's side and it is seldom used, and then only by extreme 4x4 adventurers. The Namibian side is mostly completely unreachable, as it consists of rugged ridges and high cliff walls several hundred metres high.

Southern and Western Buffer: Communal Grazing Area

The Richtersveld communal grazing area is a vast area where local people herd goats and sheep at very low densities due to the dryness and low grazing potential of the land. The permanent human population in the area is very small. Most people who use the area for grazing are inhabitants of the small villages of Kuboes, Eksteenfontein and Lekkersing, with a total combined population of 2,613 (2000 statistics), and those who use the area number several hundred at most. The communal grazing area is owned by the Sida !hub Community Property Association (CPA) and is comprised of three main grazing areas:

- The large traditional grazing area formerly zoned as Richtersveld 'Coloured' Reserve that will soon be transferred to legal ownership by the CPA while

still under the administrative authority of the Richtersveld Municipality, and is earmarked for grazing under a grazing plan to which local herders have agreed.

- The Korridor 21 (also known as Corridor East) consisting of the former farm units: Klipbok (21/2), Ratelfontein (21/3), Kouefontein (21/4), Chebiesies (21/5/R and 21/11), Hapuseep (21/7), Soetwater (21/6), Hardevlakte (21/8), Vredefontein (21/9/R and 21/10). Korridor 21 is now used for grazing by local herders at very low densities.
- The Korridor Wes 2 (also known as Corridor West) consisting of the former farm units: Uitkyk (2/1), Windwaai (2/2), Muisvlei (2/3/R), Sukkei (2/5), Swartbank (2/4), Witbank (2/6/R), Pagvlei (2/8/R), Witvoorkop (2/9/R), Arries (2/10/R). Korridor Wes 2 is now used for grazing by local herders at very low densities.

Additional Buffer Zones in the area:

There are additional areas of current and future protection which will also serve to buffer the Core Area, although they do not border directly on the Core Area. These include:

Emerging Vioolsdrif Community Conservancy: This large area borders the Nababiep Provincial Nature Reserve to the East and is currently being developed into a community protected area following the example of the Richtersveld Community Conservancy.

Kleinduin and Oograbies Wes: These two large farm units are owned and managed by South African National Parks (SANParks) for biodiversity conservation.

2.a.iii. Potential future inclusions to the World Heritage Site

The Richtersveld Community Conservancy stands on its own as a World Heritage Site as the most representative cultural landscape, cultural site and natural site of the Succulent Karoo Biome and Nama traditional areas, the details of which are described below. However, there are other areas which could potentially in the

future supplement the Richtersveld World Heritage Site. These areas, described below, form part of the evolving Greater !Gariep Transfrontier Conservation Area (TFCA)[3] which serves to link the numerous cultural and natural conservation and preservation sites in the transboundary region. Please refer to the Greater !Gariep Transfrontier Map (Map 4) and the Richtersveld Protected Areas Map (Map 5) located in Appendix A for locations of these areas.

The Richtersveld National Park comprises unique landscapes, geological formations and rare and often endemic succulent plants, also forming a very important part of the Succulent Karoo Biome and 'Biodiversity Hotspot' as denoted by Conservation International. The park was assessed in the Richtersveld World Heritage Site Feasibility Study carried out and published in 2004. Despite the botanical and cultural attributes which the park offers, the park was excluded from the nomination on the premise that mining is currently being carried out in the northwestern part of the park.

These mining activities, however, pose no threat to the Conservancy. Firstly, there are no diamond deposits in the Conservancy and massive geological formations form a natural buffer between the RNP and the Conservancy area, and there are more barriers inside the RNP itself well before the Conservancy border. Diamond mining activities within the park are carried out in and restricted to an area over 50 kilometres away from the Conservancy, and restricted to the banks and ancient oxbows of the Orange River that over millions of years carried the diamonds to the sea where the bulk are deposited in ancient marine gravel beds. Additionally, the new Protected Areas Act prevents the expansion of mining activities deeper into the national park. When the current mining, which is downscaling at present, is ceased and acceptable rehabilitation measures have been implemented, then the national park may be considered and thoroughly assessed as a potential supplement to the World Heritage Site.

[3] More information on the process of developing this TFCA described in Suich, H. et al., 2004. *Reflections on Transfrontier Conservation Areas (TFCAs) using the emerging Greater !Gariep TFCA along the Namibian and South African border as an example*. Cape Town: *Document submitted to Environment and Development in 2005.*

In Namibia, there are three areas which were identified in the feasibility study as potential components of a serial transfrontier World Heritage Site. These include Ai-Ais Hot Springs Game Park (the Namibian portion of the Ai-Ais Richtersveld Transfrontier Park), the //Gamaseb Communal Conservancy and the Sperrgebiet Restricted Area. Ai-Ais itself is comprised of the Ai-Ais Hot Springs, the Huns Mountains and the Fish River Canyon, the second deepest canyon in the world and currently on Namibia's tentative list of World Heritage Sites. The //Gamaseb Communal Conservancy is a Namibian stronghold for Nama culture, language and tradition and retains very close cultural links with the Richtersveld Community Conservancy. The Sperrgebiet Restricted Area is comprised of a coastal diamond mining concession and a near pristine and very large expanse of Succulent Karoo. The Sperrgebiet has recently been declared a national park by the Namibian government, but this has not come into effect operationally. Similar to the Richtersveld National Park, the Sperrgebiet can be assessed when mining ceases and rehabilitation has been acceptably carried out with assurances that no future mining activities will take place.

2.a.iv. Overview of Climate and Geology of the Richtersveld Community Conservancy

The unique biodiversity which justifies the nomination of the Richtersveld Community Conservancy as a World Heritage Site under criteria ix and x, is a result of unusual climatic and geomorphic characteristics which occur in few other places in the world. The region is arid with rainfall as low as 55mm per year in places along the Orange River and the Conservancy is furthermore located in an area where the summer and winter rainfall zones overlap. The climate and resultant biota are largely determined by the Atlantic Ocean approximately 100 kilometres to the west. There, the cold Benguela Current reaches the dry coastal desert and results in dense cloud banks which reach as far inland as the Conservancy and creates damp conditions supplying flora with necessary moisture. In the winter rainfall areas, rain is unusually reliable, as opposed to other deserts, and this gives rise to conditions which can support such a diversity of life.

The climate is further affected by intense summer “berg” (mountain) winds which originate from the east being drawn towards low pressure cells in the Atlantic. Temperatures fluctuate often over short periods of time between hot and cold with an annual range of zero degrees Celsius in winter to as high as 45 degrees Celsius in summer. Temperature regimes are varied throughout the area from low-lying points along the Orange River to high, exposed mountain peaks in the interior of the Conservancy. These climatic factors are added to by wide variations in elevation ranging to as high as 1300 metres.

The Orange River carves through the Richtersveld Mountains and serves as the border with Namibia

Geologically, the Richtersveld is regarded as one of the most interesting and visually stunning geological areas of Southern Africa. The Richtersveld has eight geological units deposited over an enormous time span with rocks ranging in age from one to 2000 million years old. The ancient geological forces which occurred in the Richtersveld are clearly evident - intense folding, buckling and fracturing as a result of uplifting, plate movements, and volcanic and glacial systems are on display in what can be described as an open-air museum throughout the Richtersveld Community Conservancy, most strikingly in the high cliff walls along the Orange River.

Numerous geological suites make up the Richtersveld landscape. The volcanic rocks of the Orange River Group represent the oldest Richtersveld rocks at 1996

million years in age. These are found in the Conservancy at places along the Orange River and in the Windvlakte Formation in the Fluorspar Valley and Black Face Mountain areas. The Vioolsdrif Suite with rocks aging between 1900 and 1731 million years intruded the Orange River Group and are represented in the Conservancy in the Rooiberg area as well as the remote lands in the north by the border of the Richtersveld National Park. These extrusive igneous rocks were created from intense pressures forcing molten lava up through the crust. The next oldest group called the Richtersveld Suite (920 million years ago) is comprised of steep dome-shaped masses of granite and ring complexes and can be found in the area of Mt. Stewart in the eastern parts of the Conservancy along the Orange River.

The Gariep Complex's Hilda Suite and the Stinkfontein Formation comprise most of the western part of the Conservancy and the Stinkfontein Mountains which form the high central 'spine' of the Richtersveld that serves as a barrier between the cold fog deposits on the west and the drier areas to the east. These north-south running mountains are largely responsible for the climatic differentials and variety of habitat types in the Core Area. The high mountains trap moisture at their peaks giving rise to the high rates of endemism amongst the mountain flora, as well as creating a very different environment and flora on the eastern side extending to the Orange River. The highest mountain in the Richtersveld, Cornellsberg (1377 metres) lies at the heart of the Stinkfontein Range and at the centre of the Conservancy. Also along this prominent north-south line is the unusual kilometre-wide Gannakouriep Suite, a range of black, doleritic dykes which were formed by upwelling magma intrusions between 870-540 million years ago. The younger rocks of the Nama Group, however, are perhaps the most dramatic of all with visible and intense folding on display in eastern part of the Conservancy and the Helskloof Provincial Game Reserve.

It is important to note the importance the geological formations have on the natural environment of the Conservancy. Not only have the range of geological formations created a wide variety of habitats and climate systems, but they have also resulted in an isolated environment protected on several sides by physical barriers. The northern and northwestern borders are the most obvious to the observer with the massive mountains of the Orange River Suite rising high from the floor of the land

and serving as the northern and northwestern boundary to the Conservancy. These mountains are almost entirely impassible and have no roads. The Eastern boundary is also effectively sealed off by the high quartzite cliff walls on the Namibian side of the Orange River, making the shore along most of the Namibian side unreachable except by boat and uninhabitable by people. The Helskloof Provincial Reserve is also comprised of high cliffs, deep canyons and an expanse of black and inhospitable rock faces unfit for agriculture or human habitation. These geological factors insulate the Conservancy in many ways from encroachment by unsuitable land uses along its borders.

2.a.v. Overview of Fauna

Faunal diversity is very rich and endemism rates very high for reptiles and invertebrates. Some notable species of arthropods include the *Stenocarid* beetles which have the longest legs in proportion to body size of any beetle on earth and the great diversity of scorpion species, of which 70 species live in the Succulent Karoo, 20 of which are endemic. These include *Parabuthus granulatus*, considered the most venomous scorpion in southern Africa and *P. villosus* which when disturbed can eject venom from its tail up for to a metre. To support the high diversity of plant species a similarly high diversity of pollinators is required, including monkey-beetles, bees, wasps, blister beetles, and the nemestrinid and tabanid flies which use a 70 millimetre long proboscis to tap nectar from flowers.

Reptiles also demonstrate high diversity and endemism rates. Snake species include *Bitis cornuta, B. caudalis, B. arietans, Psammophis leightoni namibensis, Naja nigricollis woodii, Leptotyphlops occidentalis*, and the endemic *B. zeropaga* (Desert Mountain Adder) and *B. schneideri*, (Namaqua Dwarf Adder and the smallest of Africa's adders measuring only 20-25 centimetres). Chelonia is represented by the smallest tortoise on earth, *Homopus signatus*, which grows to maximum of 96 mm. Also very small is *Psammobates tentorius*, which occurs in the Richtersveld and reaches between 90-100 mm.

Most of the endemic species of reptiles, as well as mammals, are burrowing animals because of the extreme heat and the geographic isolation which often

characterizes burrowing animals. Of such endemics to the Succulent Karoo are three amphibians including the Namaqua Rain Frog (*Breviceps namaquensis)* which only emerges from the sands during times of rain and which is equipped with shovel-like feet in order to dig burrows and an adhesive secretion which enables the bulbous-shaped male and females to adjoin during copulation. The Namaqua Caco Frog (*Cacosternum namaquense)* also hibernates during times of drought lasting even years and is believed by the Nama to have been born out of the dense mist clouds, as they only appear when the ground is moist and the open pans have become full of water. Other endemics include two species of burrowing skinks, four species of girdled lizards, five species of legless skinks and the Namaqua Chameleon (*Chamaleo namaquensis*).

Breviceps namaquensis and *Brachypodiom occidentalis*

Mammal species are not unusually plentiful in the region and species endemism is low, with a notable exception of the De Winton's golden mole (*Cryptochloris wintoni*), Van Zyl's golden mole (*C. zyli)* and the Namaqua dune molerat (*Bathyergus janetta*). Some springbok antelope can be found in the southwestern part of the Conservancy bordering on the communal grazing areas, and kudu, steenbok and klipspringer are other antelope species occurring in the Conservancy. Leopard, caracal, black-backed jackal, chacma baboon and brown hyena can also be found at low densities and a small herd of Hartmann's Mountain Zebra inhabit the northeastern areas bordering on the Richtersveld National Park.

In all the Richtersveld fauna, highly specialised techniques are used for survival in the harsh environment. Cryptic colouring is used by most species, from the agamas blending into succulent plants, horned adders taking the colour of sand and the

myriad of grasshopper, cricket, spider and other arthropods which take the colouring and shape of rocks. Because of the lack of dense vegetation, insect species, notably the grasshoppers, exhibit shape and colour characteristics to resemble stone types instead of vegetation with a variety of colouration resembling blue-grey of dolomite, rusty reds of quartzite, grey browns of shale-shist, shinier grey of quartzite, purples of shale, yellows and oranges of sandstone and weathered granite, and pinks and greens to resemble different soil types. Other survival strategies in insects include those of the bug species which also use their surroundings for protection, and in the case of some *Eurychora* species this is affected by emitting a waxy substance onto which particles of sand and debris stick to hide the bug from predators. Several beetle species also use waxy coating for conservation of water by decreasing direct exposure to the sun.

The cryptic colouration of a Richtersveld stone cricket

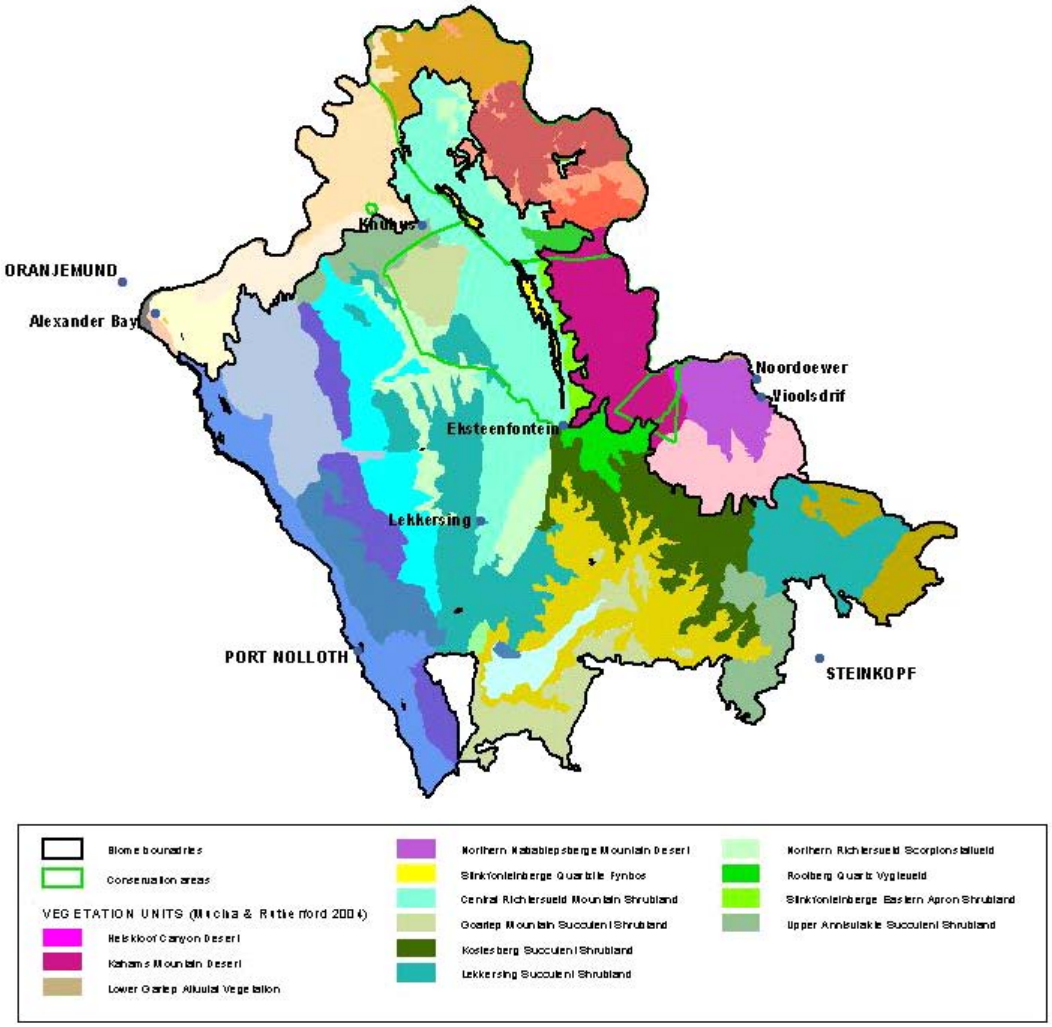
2.a.vi. Flora of the Richtersveld Community Conservancy

The Broader Richtersveld

Geographically the “Richtersveld” is very broadly considered as the area between the Orange River in the north and the Port Nolloth-Steinkopf road in the south; the Atlantic Ocean in the west and the Vioolsdrif-Steinkopf road in the east. This broad geographical area also coincides with what is widely known to be a unique geological and botanical area. There have been many biogeographical delineations of the Richtersveld, and even today the exact area is still debated. Looking at the

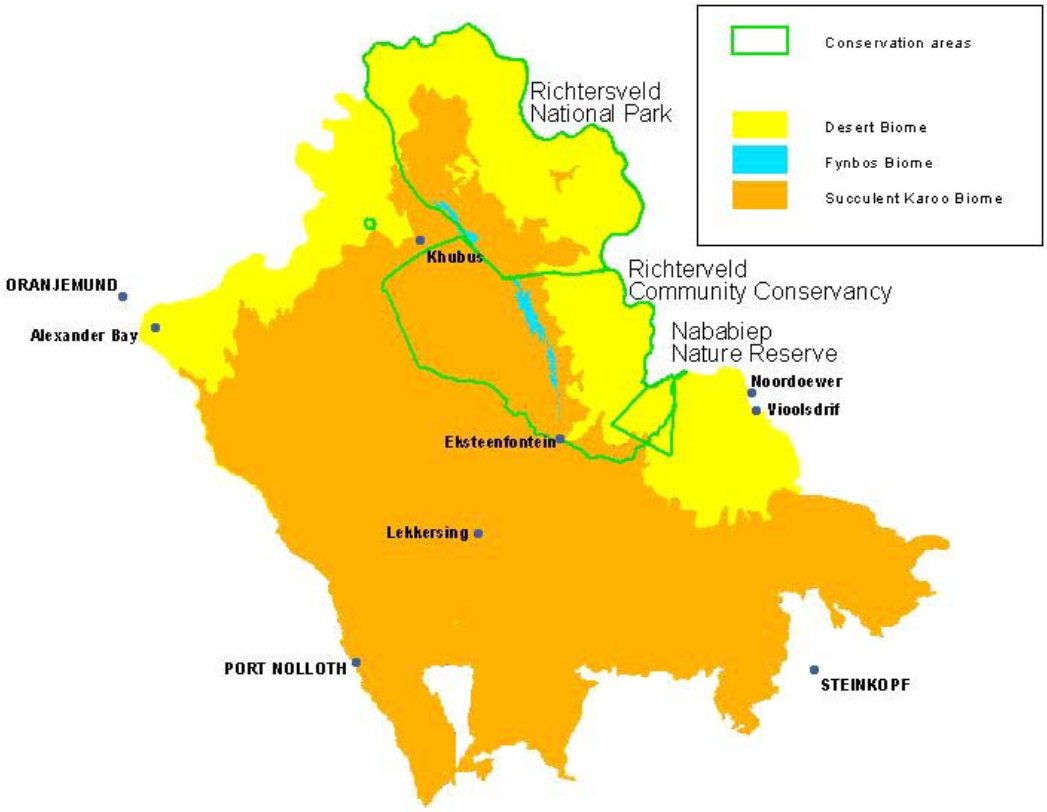
biogeographical region in the broadest sense, it can be shown by certain vegetation types given in figure 1 below:

Figure 1: The Richtersveld, as seen from a biogeographical concept in the broadest sense, delineated by vegetation units. Richtersveld Community Conservancy, Richtersveld National Park and Helskloof Nature Reserve are outlined in the green line. (Mucina & Rutherford, 2004):



The vegetation in the Richtersveld is representative of 3 biomes, the Desert, Succulent Karoo and a small patch of Fynbos represented by the Stinkfonteinberge Quartzite Fynbos (Figure 2).

Figure 2: The biomes represented in the Broader Richtersveld:



The recognition that the southern limit of the Desert biome is found south of the Orange River is only recent. Jürgens (1991) widened the concept of desert by (a) including the arid belt in vicinity of the lower Orange River from the Richtersveld to the Pofadder region and (b) by introducing three subunits of desert (also: biogeographical districts), which occur within South Africa: Southern Namib Desert, Western Gariep Desert and Eastern Gariep Desert.

Within the Richtersveld it was acknowledged that there is a Gariep Center of Endemism (Hilton-Taylor & Le Roux, 1989; Van Wyk and Smith 2001). More

detailed classification of the vegetation for the Richtersveld recently has changed the biogeographical concept of the Richtersveld, both on a biome and bioregional level. It has become clear that there are very different biogeographical patterns found in close vicinity in the area.

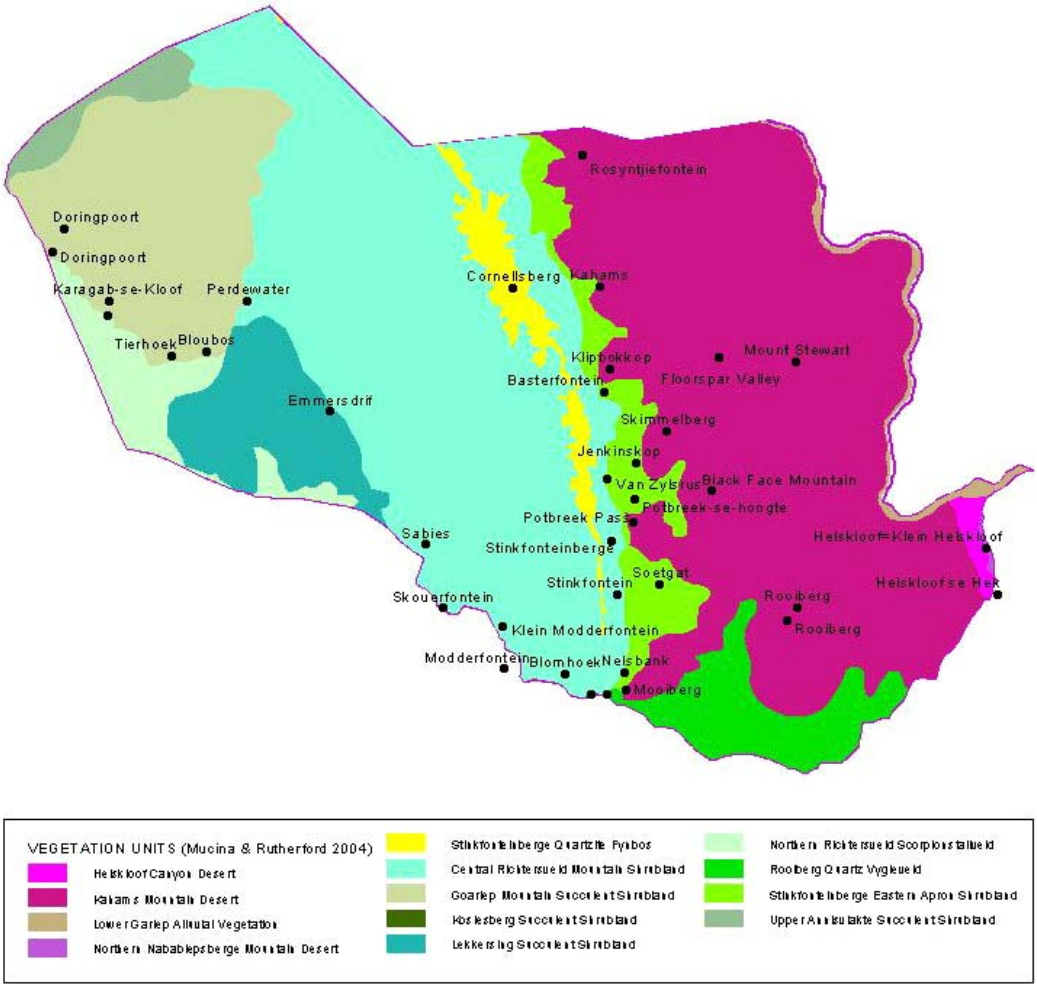
Jürgens (1991, 1997) defines two very different centres of endemism, albeit located close to each other. While these two centres of endemism are climatically well separated by predominantly winter and summer rainfall areas, it has been proposed that they formed refugia for survival during the last glaciation for most of the endemic taxa (Jürgens 1991, 1997, Midgley et al. 2001). Conservation of taxa may have been mainly supported by gorge systems within dissected mountain areas, inselbergs, and dunes in the coastal Sandveld.

Jürgens (1991) recognized two Centers of Endenism, the Western Gariep Centre and the East Gariep Centre of Endemism (Jürgens 1991, 1997). The Richtersveld Community Conservancy falls in the East Gariep Center and contributes greatly in the conservation of endemic species.

Vegetation, climatic and geological descriptions of each Vegetation Unit (The information on the vegetation descriptions were obtained from Mucina & Rutherford (In Prep))

The Conservancy is representative of 3 biomes: the Desert, Succulent Karoo and a small patch of Fynbos represented by the Stinkfonteinberge Quartzite Fynbos (Figure 2). It is representative of 13 vegetation units (Figure 3). Species lists for each vegetation unit is found in Appendix F.

Figure 3: Richtersveld Community Conservancy Vegetation Units:



DESERT BIOME (East Gariep Centre)

Lower Gariep Alluvial Vegetation

75406.5520 total ha

1169.6731 ha in Richtersveld Community Conservancy = 1.55%

The Lower Gariep Alluvial Vegetation unit is found in a narrow strip along the Orange River from just east of Alexander Bay to the Boegoeberg Dam in the Northern Cape. A very small percentage of this unit is found in the Richtersveld Community Conservancy and consists of alluvial sandy floodplains next to the

Orange River from the inflow of the Van Zyls River to Modderdrif-Suid. Mainly syenites and granites of the Richtersveld Suite are found here.

Hot and dry conditions both in winter and summer are typical for the low altitudes along the Orange River with winter and summer rainfall, but predominantly in the summer rainfall. Annual rainfall is between 40 and 60 mm and the temperature in the summer is often between 40 °C and 50 °C.

The vegetation is a gallery forest consisting mainly of trees like *Tamarix usneoides, Rhus pendulina, Ziziphus micronata, Euclea pseudebenus, Acacia karoo* and the exotic invader *Prosopis glandulosa*, as well as shrubs like *Tetragonia schenckii* in the temporarily flooded clay, loam or sandy terraces and pans. The trees are often infested with *Viscum capensis* and *Tapinanthes oleifolius*. Where there has been disturbance *Epaltes gariepina, Nicotiana glauca* (exotic invader), *Frankenia pulverulenta, Coronopus integrifolius, Gnaphalium confine, Cyperus laevigatus* and *Argemone ochroleuca* (exotic invader) are found. Other indicators of disturbance along the river are patches of *Cynodon dactylon* and *Phragmites australis*. In the still waters and shallow parts of the river, the reed *Gomphostigma virgatum* is found.

Helskloof Canyon Desert
826.1197 total ha
653.6981 ha in Richtersveld Community Conservancy = 79.13%

A small north-south valley where the lower reaches of the Groen River run into the Orange River between the Nababiepsberge in the east and the Rooiberge in the west. Altitudes vary between 160 to 300 m. Rock formations are mainly quartzite of the Kuibis Subgroup (Nama Group) with fringes of the area occurring on the metavolcanics and metasediments of the De Hoop Subgroup (Orange River Group). Shale, quartzite and limestone of the Schwarzrand Subgroup (Nama Group) are also present. The soils are alluvial sediment with colluvial material in places.

Rainfall between 40 and 60 mm per year tending to peak in late summer, but very variable. However, some localised winter water input is received through drainage from the winter rainfall area to the south. Summers are very hot, often more than 40 °C and occasionally reaching 50°C, and the winters are mild. The bottom of the canyon is one of the hottest environments in the Richtersveld.

Small sparse trees like *Schotia afra, Maerua gilgii, Maerua schinzii* and *Adenolobus gariepensis* are found in the dry river beds. In the debris and washes of the canyon bottom trees such as *Schotia afra, Boscia foetida* and *Parkinsonia africana*, or shrubs such as *Sisyndite spartea, Calicorema capitata* and *Gaillonia crocyllis* are frequently found. On the rocky slopes, scattered populations of succulents of, for example, *Aloe dichotoma, Brownanthus ciliatus, Brownanthus nucifer, Ceraria namaquensis, Euphorbia gariepina, Euphorbia phylloclada, Euphorbia virosa, Ruschia paucipetala* and *Zygophyllum microcarpum* occur. Other nonsucculent species found include *Hermbstaedtia glauca, Fagonia capensis, Kissenia capensis, Monechma mollissimum, Codon royenii, Pharnaceum croceum, Sesuvium sesuvioides, Trichodesma africanum* and *Odyssea paucinervis*.

There are no known species strictly restricted to this unit. However, Helskloof Canyon Desert has a high number of endemic elements of the East Gariep Centre sheet-wash valleys (e.g. *Maerua gilgii*), and of the narrower East Gariep Centre mountain deserts (*Brownanthus nucifer, Mesembryanthemum gariusanum, Schwantesia herrei, Tylecodon hallii*). On some rocky slopes large creeping individuals of *Bowiea gariepensis* occur.

The unit is protected in the form of the provincial Nababiep (Helskloof) Reserve as well as the Conservancy.

Kahams Mountain Desert
59449.6899 total ha
52292.1305 ha in Richtersveld Community Conservancy = 87.96%

This highly dissected landscape with rugged mountains and bare rock is located between the Stinkfonteinberge basal apron in the west and the Orange River and

Hellskloof Canyon in the east, between the Rosyntjieberge Mountains in the north and the Rooiberg in the south and includes Gorgon's Head, Mount Stewart and Black Face Mountain. Altitudes vary from about 200 to 800 m. The granodiorite, adamellite, leucogranite, tonalite and diorite of the Vioolsdrif Suite are intruded by syenites and granites of the Richtersveld Suite and together account for three quarters of the area; Calc-alkaline, acid and metavolcanic rocks and quartzitic metasediments of the De Hoop Subgroup, Orange River Group are also significant. The area is very rocky with little to no soils.

There is a steep gradient of increasing aridity from west to east, in the east, hot and dry conditions are typical for the low altitudes along the Orange River, while in the western parts at higher elevations, nearer the foothills of the Stinkfonteinberge Range, the climate is relatively more humid and cooler. Rainfall between 45 to 70 mm per year falls both in the winter and summer with more dominant summer rainfall tending in the east. Fog is absent. Maximum summer temperatures reach up to 50°C.

The vegetation is very sparse becoming somewhat less sparse to the west. Species found in the plains, often in dry river beds include tall shrubs like *Zygophyllum prismatocarpum, Sisyndite spartea, Nymannia capensis*. Tall succulent shrubs (*Aloe dichotoma, Ceraria namaquensis* and *Euphorbia virosa*) as well as succulent dwarf shrubs (*Brownanthus nucifer, Brownanthus ciliatus, Brownanthus pseudoschlichtianus, Euphorbia gariepina, Euphorbia gummifera, Hereroa hesperantha, Petalidium parvifolium, Trianthema triquetra*) are mostly found on slopes and quartz patches. No strict endemics to this vegetation unit are known but the unit contains a number of endemics of the East Gariep Centre, such as *Brownanthus nucifer, Euphorbia gariepina, Lithops meyeri, Mesembryanthemum gariusanum, Pelargonium desertorum, Sarcocaulon herrei, Schwantesia herrei* and *Tylecodon hallii*.

The unit borders on units of the Succulent Karoo Biome to the north, south and west. In the far north of the unit, 6% is protected within the Richtersveld National Park and to the east 16% is found in the Nababiep Nature Reserve. Parts of this

vegetation unit have been impacted by grazing, and the development of the Conservancy has served to reduce associated environmental damage.

Northern Nababiepsberge Mountain Desert
24587.4792 total ha
72.7121 ha in Richtersveld Community Conservancy = 0.3%

This unit is found on a large rocky plateau interrupted by deep gorges, south of the Orange River, west of Vioolsdrif, east of Hellskloof with a southern boundary 15 to 20 kilometres south of the river. The area is very rocky with no soils to little and extremely shallow soils. The altitude is from about 200 to 750 m. The geology consists mainly of shale, quartzite and limestone of the Schwarzrand Subgroup with a small area underlain by the Quartzite of the Kuibis Subgroup (Nama Group).

There are extreme differences between vegetation on the plateaus and in the gorges; the plateaus are often almost bare of any vegetation with extremely sparse populations of *Zygophyllum rigidum, Zygophyllum decumbens, Euphorbia gariepina, Mesembryanthemum gariusanum and Ruschia paucipetala, while Ruschia subaphylla* and *Wellstedia dinteri* are found on rock debris. Depending on local hydrological conditions, the bottoms of the gorges can be bare of vegetation or woody shrubs can form low gallery shrublands as in the Helskloof Canyon Desert. Shrubs such as *Curroria decidua, Maerua schinzii, Trianthema triquetra* and *Wellstedia dinteri* are more often found in dry drainage lines.

This area is not well researched and is possibly the most sparsely vegetated of the desert units.

FYNBOS BIOME

Stinkfonteinberge Quartzite Fynbos
4902.8125 total ha
3436.9688 ha in Richtersveld Community Conservancy = 70.1%

This small unit is found in the Central Richtersveld in a narrow belt along the mountain tops and ridges of the Van der Sterrberg-Stinkfonteinberge range and forms the upper backbone of the Richtersveld, as the Van der Sterrberg - Stinkfonteinberge range runs from the northern end of the Richtersveld near Sendelingsdrif to just north of Eksteensfontein in the Southern Richtersveld. The landscape at the high altitudes of between 1060–1340 m is as diverse as the geomorphology of the longitudinal mountain range. While over long distances it really forms a ridge in North-South direction, in other places steep or rounded mountain tops are embedded, or, between those, saddles and valleys. In other parts, a plateau has been formed, allowing accumulation of soils above bedrock. Therefore, habitat types differ strongly and are controlled by rock structure or overlaying soil depth, by exposition and by inclination. A wide spectrum of different rocks is found, but predominantly quartzite of the Precambrian Gariep Complex. The soils are mainly loams or loamy sands and the soil depth varies strongly with topography and rock structure.

This area has a mild winter rainfall climate with occurrence of fog in the western parts and higher altitudes. The rainfall is controlled by geomorphology and it is presumably reaching more than 200 mm per year at the highest altitudes. Frost is possible at 10 to 20 days per year.

The vegetation can form dense shrublands where soil depth and rock structure allow water storage over longer periods of the year. On flatter plateau positions with leached quartzite soils open *Merxmuellera dura* grasslands can be found. Very shallow soils and bare rock support vegetation with a dominance of leaf succulent dwarf shrubs. Small trees or large shrubs found here are *Aloe ramosissima, Rhus incisa var. effuse* and *Rhus populifolia.* Dominant shrubs or tall shrubs found are *Lobostemon echioides, Dicerothamnus rhinocerotis, Euryops tenuissimus, Didelta spinosa*, *Eriocephalus brevifolius, Eriocephalus microphyllous, Helichrysum hebelepis*, *Chrysocoma ciliata, Tripteris sinuata, Felicia brevifolia, Passerina glomerata, Asparagus retrofractus, Asparagus exuvialis, Galenia africana, Montinia caryophyllacea, Pteronia divaricata* and *Pteronia glauca.* Stem and/or leaf succulent shrubs include *Stoeberia arborea, Othonna furcata, Tylecodon paniculatum, Euphorbia francescae* (endemic and with succulent roots), *Dioscorea elephantipes,*

Adromischus marianeae, Antimima pilosula, Aridaria brevicarpa, Cephalophyllum goodii, Ceraria fruticulosa, Crassula expansa ssp. pyrifolia, Crassula hemisphaerica, Crassula macowaniana, Crassula muscosa var. *obtusifolia, Prenia sladeniana* and *Tetragonia reduplicate*. The graminoid component is represented by Merxmuellera *dura, Ischyrolepis sieber, Bromus pectinatus, Ehrharta calycina, Ehrharta delicatula, Ehrharta longiflora* and, *Fingerhuthia africana*.

For a number of taxa including *Lobostemon echioides*, *Merxmuellera dura, Ischyrolepis sieberi* and *Passerina glomerata* this unit represents the northermost occurrence.

Most of the unit is under relatively natural conditions and experiences only little disturbance from pastoral use. 30% of the unit are located and protected within the Richtersveld National Park, although this refers to the somewhat drier northern part of the unit. The remaining is protected by the Richtersveld Community Conservancy.

SUCCULENT KAROO BIOME

Central Richtersveld Mountain Shrubland
120038.8662 total ha
46538.7191 ha in Richtersveld Community Conservancy = 38.77%

This unit is found in the central regions of the Richtersveld, along the Central Mountain Ridge from Khodas Peak in the North along the Vandersterrberg and Stinkfontein Range stretching about 100 km in north-south direction, however, excluding the highest altitudes where it grades into Stinkfonteinberge Quartzite Fynbos. It forms the major part of the Richtersveld mountains, including a wide variety of landscapes. Steep and rocky mountains are dominant with a rolling topography in other parts. Deep canyons, but also wider valleys, can be found scattered over most of the area. A spectrum of metavolcanics and metasediments, mostly quartzite, of the Stinkfontein Subgroup of the Gariep Supergroup and granites of the Mokolian Vioolsdrif Suite are present. The soils encompass a wide

variety of loamy sands, sands and loams derived from granites and have a pH between 7 and 8.

This area has a mild winter rainfall climate with occurrence of fog in the western parts and higher altitudes. Frost is very rare at lower altitudes but up to 10 days per year in the higher mountains. Rainfall varies from 60 to 200 mm but with most of the area less than 90 mm. At higher altitudes, especially on southwestern slopes, the frequent occurrence of fog or cloud results in a significant additional water supply for plants.

There is a gradient of increasing density and height of vegetation with increasing altitude and far denser vegetation occurs on the southwestern slopes than on the northeastern slopes (see climate above). A wide range of habitat types result in a very high alpha and beta diversity. The most important types of shrubland are: (a) the sparse dwarf-shrub vegetation of the plains and valley bottoms, with communities dominated by either *Brownanthus pseudoschlichtianus* on loamy or silty soils (associated with *Cheiridopsis robusta, Drosanthemum otzenianum, Euphorbia ephedroides, Zygophyllum retrofractum, Hypertelis salsoloides* and *Aridaria noctiflora*) or *Zygophyllum prismatocarpum* (chamaephytic form) and *Mesembryanthemum pellitum,* on calcretes; (b) the dwarf shrublands of the low-lying or more arid parts of the mountains, showing high abundance of *Ceraria fruticulosa* and *Euphorbia chersina* and with two main plant communities dominated by either *Ruschia senaria* (associated with *Sphalmanthus deciduus, Sphalmanthus decurvatus, Hermbstaedtia glauca*) or by *Galenia dregeana* (associated with *Ruschia* affinity *sarmentosa, Euphorbia hamata, Astridia speciosa, Crassula grisea, Aloe pearsonii, Cotyledon orbiculatum,* partly *Othonna opima, Crassula elegans, Senecio corymbiferus* etc.) or by *Zygophyllum prismatocarpum* (upright form); (c) tall and dense shrubland (sometimes greater than 2 m high) at higher altitudes on the mountains with communities quite similar to the dominant vegetation of the Namaqualand Klipkoppe Shrubland, with a group of communities dominated by *Didelta spinosa* and either associated with *Aloe ramosissima, Sarcostemma viminalis* and *Indigofera pungens* (warmer eastern units, often gravel) or with *Rhus populifolia, Tylecodon paniculatus, Montinia caryophyllacea, Othonna furcata, Stoeberia frutescens* or with *Aloe pearsonii* (often in mass populations, e.g. in the

Numees Hellskloof area) or with *Galenia africana* (all these often on deeper, more loamy soils). These communities form a transition towards high-altitude dry and species-poor form of quartzite fynbos with *Dicerothamnus rhinocerotis* and *Euryops tenuissimus*. There is a high number of endemic taxa in this unit *(Adenoglossa decurrens, Aloe pearsonii, Androcymbium exiguum subsp. vogelii, Astridia speciosa, Cephalophyllum goodie, Cheiridopsis pilosula, Crotalaria pearsonii, Galenia dregeana, Othonna herrei, Othonna opima, Pelargonium desertorum, Trachyandra aridimontana* and *Tylecodon kritzingeri).*

This unit is the least threatened of the vegetation units and it virtually untransformed but is subject to grazing pressure, mainly by goats. This vegetation is of high importance due to numerous endemic species. A similar unit occurs in a restricted area on the northern side of the Orange River in Namibia. Although the unit is characterised by high beta diversity on a local scale along steep altitudinal gradients, it has a surprisingly wide distribution of communities along the north-south gradient. Endemic taxa shared with some neighbouring vegetation units include *Cephalophyllum goodii*, *Galenia dregeana Pelargonium desertorum* and *Tylecodon krinzingeri*. Some endemic taxa may also occur in equivalent vegetation types in Namibia.

Goariep Mountain Succulent Shrubland
17077.73 total ha
16990.87 ha in Richtersveld Community Conservancy = 99.49%

The unit is entirely formed by the Gariep Mountain (Ploegberg) – a large granite inselberg located entirely in the western part of the Conservancy. The circular geomorphological structure of the Goariep Mountain rises steeply above the surrounding landscape, mostly plains and culminates in numerous granite domes. The altitude ranges from 300 to 1214m. Habitat types differ strongly with regards to the granitically derived soil (texture and nutrients) from the Kuboos Pluton, exposition and moisture levels, the last mentioned being relatively high for a region in close proximity (< 20 km) to the hyperarid Namib Desert habitats.

This unit is in a winter-rainfall area with about 70 mm rainfall per annum, increasing with altitude and controlled by relief, probably reaching as high as 200 mm at higher altitudes. High moisture levels are generated by orogenic uplift of moist air by the slopes of the Goariep Mountain's large granite massiv, the first high mountain in the pathway of the airstream, which moves in from the ocean from a southern, southwestern or western direction. Consequently, rainfall and fog generate the highest precipitation along the southern and western slopes of the mountain especially at higher altitudes. Frequency of frost depends on the altitude, reaching up to 10 days per year in the summit area.

In the region, the Goariep Mountain Succulent Shrubland has the largest surface area with highest densities of photosynthetically active biomass, as measured by the NDVI index of NOAA or MODIS satellite data. The vegetation consists of dense to very dense and tall shrubland with a high frequency of populations of *Aloe ramosissima, Carissa bispinosa, Ceraria fruticulosa, Cheiridopsis robusta, Codon royenii, Cotyledon orbiculata, Crassula grisea, Cyrtanthus herrei, Indigofera pungens, Montinia caryophyllacea, Rhus populifolia, Salvia garipensis, Sarcostemma viminale* and many other shrubs or dwarf shrubs, both succulent and non-succulent.

The lower reaches of the vegetation unit are susceptible to grazing, but the Richtersveld Community Conservancy serves as the only conservation measure for this entire unit.

Kosiesberg Succulent Shrubland
61217.6421 total ha
0.8658 ha in Richtersveld Community Conservancy = 1.41%

Situated in the southwestern Richtersveld, the unit includes a major part of the mountain ranges and escarpment region stretching 55 km from Eksteensfontein in the north over the slopes of the Kosiesberg to the Anenouspass in the southeast. The unit forms the escarpment that includes the steep slope between the high plateau in the east and the lower plateau in the west as well as several ranges of mountains and hills at the upper and lower level. Due to the incision of deep valley

systems the unit is deeply dissected with a number of thinly connected fragments. Altitude varies from about 500 to 1100 m. The geology consists mostly of granites and gneisses of which the Mokolian Hoogoor and Vioolsdrif Suites are most significant. However, a large area in the west is underlain by alkali-granite of the Korridor Suite which supports mostly loamy soils.

It is a winter rainfall area with an estimated at 100 to 200 mm (possibly slightly higher) rain per annum with orogenic cloud formations and fog frequently observed in winter. At higher altitudes up to 10 frost days per year can be expected.

The unit is characterised by a high beta-diversity due to steep altitudinal gradients and mountainous topography. *Conophytum herreanthus ssp. herreanthus* (*Herreanthus meyeri)* occurs at Klipbok (within the unit) but also within Umdaus Mountains Succulent Shrubland)**.** *Cheiridopsis speciosa* and *Tylecodon bayeri* are also found at the margin to Rooiberg Quartz Succulent Shrubland. Although the summit of Kosiesberg is mapped just outside this unit, its main escarpment represents this unit. A number of the plant communities, which also occur in the Central Richtersveld Montane Shrubland, occur here, as well (Juergens, 2004). However, due to the cooler temperatures and possibly higher rainfall this shrubland shows some important differences with the Central Richtersveld Montane Shrubland. Generally, it has a higher proportion of the tall-grown and dense shrublands (partly more than 2 m high) with communities quite similar to the dominant vegetation of the Namaqualand Klipkoppe Shrubland, with a group of communities dominated by *Didelta spinosa* and associated with *Tylecodon paniculatus, Montinia caryophyllacea, Othonna furcata* and *Galenia africana.* In addition, a large number of species occur here, which do not occur (or are only rarely seen) in the Central Richtersveld Montane Shrubland, especially many geophytes, e.g. species of the genera *Babiana, Haemanthus, Hesperantha, Hessea, Lachenalia, Strumaria, Syringodea and Tulbaghia*.

A major part is relatively protected due to the steep and inaccessible landscape and only a fraction exists within the Conservancy (1.4%) and receives its protection. The unit is not well studied and includes a large number of species, including rare and endemic ones. Therefore, parts of the unit, including at least a part of the

escarpment slopes, should be conserved. In the future, investigations will be undertaken to extend the boundary of the Richtersveld Community Conservancy southwards to include more of this unit.

Lekkersing Succulent Shrubland
81474.4986 total ha
7438.2858 ha in Richtersveld Community Conservancy = 9.13%

The Lekkersing Succulent Shrubland is a longitudinal band in the southwestern Richtersveld stretching north and south of Lekkersing with an additional extension to the southeast and some scattered patches further north. All these parts are located in the lowlands west and southwest of the Central Mountain Ridge of the Richtersveld. The core area has a north-south extension of some 70 km from near the Goariep in the north to the vicinity of Oograbies in the south. The area consists of a mosaic of hills, flat or slightly rolling plains, with embedded quartz fields and ridges, some sand sheets and dunes, rocky gorges and including some rocky mountains. The altitude ranges from about 150 to 550 m. Quartz and quartzitic rocks are the most important. A wide spectrum of habitat types occurs, ranging from rock to dunes. However, the majority of the area is hilly with shallow loam or sand cover with gravel above bedrock. The geology consists mainly of quartzite, sometimes schist and dolomite of to the Precambrian Gariep Complex.

The mean annual precipitation of 60-120 mm occurs mostly in the winter. Coastal fog is not as frequent as along the coast, but more important than in the Richtersveld mountains. Frost very rare.

These areas are covered by leaf succulent dwarf shrublands, similar to the lower parts of the Richtersveld Central Mountains, but at lower densities. Coastal elements like *Stoeberia beetzii* can be dominant while *Zygophyllum prismatocarpum* (upright form) becomes more important in the disturbed areas. *Enarganthe octonaria* has the highest cover on quartzitic rock and *Brownanthus arenosus* or *Cladoraphis spinosus* on the dunes. Certain quartzitic gorges like the Karachabpoort (south of Lekkersing) are very rich in species including *Cyrtanthus herrei, Cheilanthes hastata, Helichrysum hebelepis, Rhus undulate, Cysticapnos*

vesicaria, Pelargonium echinatum and *Crotalaria pearsoni* as well as endemics including *Tylecodon torulosus* and *Tylecodon longipes*. Quartz fields, for example at Herre´s famous Vlakmyn area, house endemic or locally rare species like *Nelia pillansii,* and *Lithops meyeri*.

Because none of this vegetation unit is conserved in a other conservation areas, it is an important component in the Richtersveld Community Conservancy. Outside the Conservancy, the vegetation is in places degraded by grazing, especially in a radius of ca. 6 kilometers around the small village of Lekkersing making the conservation in the Conservancy even more important.

Three of the many Conservancy aloes: *Aloe pillansii, A. striata,* and *A. gariepensis*

Northern Richtersveld Scorpionstailveld

36441.9859 total ha

4486.9754 ha in Richtersveld Community Conservancy = 12.31%

This veld consist of a series of plains or valley floors scattered in the northern Richtersveld, at the maps scale including the large Goariepvlakte, Koeroegabvlakte, some plains between Abiequarivier and Gannakourieprivier and at the western entrance to the Springbokvlakte. Typically fragmented and showing a landscape of flat, though often tilted, or very slightly undulating topography. Altitude ranges from 260 to 760 m. While often a whole large vlakte is covered by the unit, in other cases

it is restricted to specific geomorphological locations, e.g. limited to the pediment west of the main mountains and to locations along the river beds, which are both protected against deflation by strong winds, e.g. in the Numees area. The small northeastern part of this area is underlain by granites of the Vioolsdrif Suite, the rest occurs on Cenozoic alluvium, aeolian sand and calcrete; loamy or silty soils, which are, as a rule, formed by aeolian deposition; not deeper than 40 cm below the surface calcrete layers or other calcium carbonate accumulations. Often the soils also show high salinity. The silt component is subject to local aeolian erosion and sedimentation, resulting in erosion in the bare areas between the bushes and silt deposition underneath the bushes - these biogenic mounds regularly attract ants and termites.

Due to the wide range of the unit, also a wide spectrum of climatic conditions can be found. The predominantly winter annual rainfall may vary from 50 - 100 mm. Fog can be important, but not east of the Vandersterrberge. A few days of frost per year can occur in the units of higher altitude, for instance on the Koeroegabvlakte. Similarly, temperatures can follow a wide spectrum. However, in the northeastern Richtersveld, well developed Scorpionstailveld is seldom found in the hotter areas below an altitude of 330 m.

Brownanthus pseudoschlichtianus (the vernacular name, “scorpion’s tail”, referring to the segmented stems) is typically dominant and forms low “cussion-like” plants of 1 to 1.5 m in diameter with interspaces of 1 to 3 m. In between the plants of *B. pseudoschlichtianus,* numerous other species co-exist, some of them with high predictability, such as the geophyte *Trachyandra muricata*. Most of the Northern Richtersveld Scorpionstailveld is covered by a regular pattern of heuweltjies, which mostly are inhabited by *Mesembryanthemum hypertrophicum, M. squamulosum, M. pellitum* and *Psilocaulon subnodosum.*

Aside from the Conservancy, 20% of this unit is statutorily conserved in the Richtersveld National Park. It is susceptible to grazing pressures and more protection is recommended for this unit.

Rooiberg Quartz Vygieveld

12927.8572 total ha

5947.1863 ha in Richtersveld Community Conservancy = 46.0%

This unit is found in the region east of Eksteenfontein, south of the Rooiberg and west of the Hellskloof Canyon. It consists of plateau with slightly undulating flats and hills with a mosaic of rocky surfaces with loamy soil, while plains and hills covered with quartz layers have silty to sandy loamsoils. It occurs at relatively high altitudes of between 500 and 750 m. The geology consists of metavolcanics and quartzitic metasediments of the De Hoop Subgroup of the Orange River Group and account for half the area, with most of the remainder being granite of the Vioolsdrif Suite. Patches of quartzite with a diameter of some meters to several hundred meters imbedded within grey granite-gneiss of Precambrian often with saline loamy soils underlying the quartz-rich top layers.

Succulents in the quartz fields of the Richtersveld

The predominantly winter annual rainfall is between 70 and120 mm. There are very few frost days per year and fog plays does not play an important role.

Leaf succulent dwarf shrubs like *Aspazoma amplectens, Cephalophyllum regale*, *Ruschia leucosperma* and *Schlechteranthus hallii* are dominant on quartz fields, together with highly contracted growth forms like *Crassula deceptor, Crassula columnaris, Cheiridopsis speciosa. Euphorbia gummifera* is dominant on rocky outcrops. Large plains of silty or loamy soils are dominated by *Brownanthus pseudoschlichtianus* while strongly grazed loamy soils above rock often show a

predominance of the upright dwarf shrub form of *Zygophyllum prismatocarpum*. Endemic species include *Arenifera pillansii, Cephalophyllum goodie, Cheiridopsis herrei, Cheiridopsis speciosa, Conophytum herreanthus, Conophytum wettsteinii* subsp*. fragile, Tritonia marlothii* subsp*. delpierrei* and *Tylecodon bayeri.*

As almost nothing of this unit is conserved in another conservation area (4% in the Nababiep Nature Reserve) and almost 50% of this important vegetation unit is in the Richtersveld Community Conservancy, the Conservancy plays an important part in the conservation of this high endemic vegetation. A number of endemic species, especially within the quartz fields, point to the value for conservation. The major threat to this unit it grazing and illegal plant collecting which have been mitigated within the Conservancy.

Stinkfonteinberge Eastern Apron Shrubland
6586.93 total ha
6493.0568 ha in Richtersveld Community Conservancy = 98.57%

This unit is found along a narrow belt immediately east of the Stinkfonteinberge Range in the southeastern Richtersveld. It has a north-south trending longitudinal extension of about 35km from just south of the Rosyntjieberge to immediately north of Eksteensfontein. The landscape of this unit is formed by the lower flat slopes and the subsequent pediment at the foot of the Stinkfonteinberge Range and includes a number of small mountains. Mainly flat to rolling landscape at the foot of the higher mountains, characterised by deeper sandy or silty loams similar to soils of the Northern Richtersveld Scorpionstailveld; it is distinguished from the latter by a more variable topography and a much lower vegetation density and higher number of degradation indicator species. Granites of the Mokolian Vioolsdrif Suite predominate, with Stinkfontein Subgroup Quartzites on the western fringes. The soils are composed of silt or loam with calcretes and show extreme erosion in places. The altitude ranges from 500 to 800 m.

The predominantly winter rainfall between 50 to 120mm lies within a gradient of orogenic rains rapidly decreasing from west to east. A few days of frost within the year do occur but fog is unimportant.

The vegetation is very sparse in this unit and further monitoring is required to assess grazing and erosion threats. No endemic species are known from this unit. 98.5% of this unit falls within the Richtersveld Community Conservancy.

Upper Annisvlakte Succulent Shrubland
19180.8018 total ha
2013.2221 ha in Richtersveld Community Conservancy = 10.5%

This shrubland is found in the southern parts of the Annisvlakte north and northwest of the Goariep Mountain from near Kuboes to the region southeast of Arrisdrif. The westernmost section, southeast of Arrisdrift, is virtually separated from the main area by a northwards moving duneveld of red sand (part of Richtersveld Red Duneveld), which at its northern margin fades out to form a shallow sand sheet, which crosses the main road between Alexander Bay and Khubus. The landscape is mainly a very wide tilted plain, formed by the huge pediment of the Goariep Mountain, towards the Orange River. Some river courses are deeply incised into this plain. On the plains, habitats are controlled by soil salinity and texture, and by different states of degradation by overgrazing. The granite of the Kuboos Pluton of the Cambrian Kuboos-Bremen Suite is largely covered by alluvium loamy sandy gravel soils, mainly derived from granite and superficial calcrete deposits. The altitude ranges from 150 to 500 m.

The predominantly winter rainfall varies between 55 to70 mm per annum. Light frost is a very rare event, but the unit receives sea fog from a southwesterly direction as well as “Malmokkie” fog. Strong winds to very strong storms occur and cause severe dust and sand storms with consequentially strong erosion of topsoil material and sandblasting.

The present state of the vegetation is interpreted as result of strong grazing pressure over the past 100 years. At present, very sparse, dwarf vegetation cover, mainly *Galenia fruticosa, Drosanthemum hispidum, Euphorbia gummifera, Galenia crystalline* and *Psilocaulon subnodosum* and all indicators of disturbance, is observed. Another indicator of disturbance is the high numbers of annuals and

geophytes after good rains. Very high numbers of annual or bi-annual succulent species of *Mesembryanthemum hypertrophicum* and *Mesembryanthemum squamulosum* characterize this unit (Figure 2). In the past this unit was probably covered by Northern Richtersveld Scorpionstailveld and partly by the *Ruschia senaria*.

None of this unit is conserved in any other conservation area and a small proportion falls within the Richtersveld Community Conservancy. Comparison of recent historical photographs shows that soil and vegetation have been severely altered since the early 20th century. The export of topsoil material negatively affects neighbouring areas such as the Cornellskop to the east with its population of *Aloe pillansii*.

Endemic plant species

In addition to numerous species endemic to the Succulent Karoo or the Gariep Centre, the Richtersveld Community Conservancy has a high number of plant species endemic to just the Conservancy area's East Gariep Centre itself. There are a total number of 33 endemic plant species found in the Richtersveld Community Conservancy (Table 1) and Appendix F indicates which endemic species are found in each vegetation unit (note: some are found in more than one specific unit within the Conservancy). The Conservancy is especially important for the conservation of one of the world's most endangered plants, *Aloe pillansii,* with one of the most important localities for its survival being the Rooiberg Mountains in the Conservancy where there are a number of these ancient plants. This attractive and impressive plant that towers over the hilly slopes can easily become a flagship species for the area.

The highest number of endemic species is found in the Central Richtersveld Mountain Shrubland (13), the Rooiberg Quartz Vygieveld (9), the Kahams Mountain Desert (8) and the Lekkersing Succulent Shrubland (8). Only 5 of the 13 vegetation units have no observed Richtersveld endemic species (Table 2).

Table 1: A list of plant species endemic to the Richtersveld Community Conservancy's East Gariep Centre:

Adenoglossa decurrens
Aloe pearsonii
Aloe pillansii
Androcymbium exiguum subsp. vogelii
Arenifera pillansii
Astridia speciosa
Bowiea gariepensis
Brownanthus nucifer
Cephalophyllum goodii
Cheiridopsis herrei
Cheiridopsis pillansii
Cheiridopsis pilosula
Cheiridopsis purpurea
Cheiridopsis speciosa
Conophytum herreanthus
Conophytum wettsteinii subsp. fragile
Crotalaria pearsonii
Euphorbia francescae
Euphorbia gariepina
Galenia dregeana
Lithops meyeri
Mesembryanthemum gariusanum
Othonna herrei
Othonna opima
Pelargonium desertorum
Sarcocaulon herrei
Trachyandra aridimontana
Tritonia marlothii subsp. delpierrei
Tylecodon bayeri
Tylecodon hallii
Tylecodon kritzingeri
Tylecodon longipes
Tylecodon torulosus

Table 2: The number of species endemic to the Richtersveld Community Conservancy's East Gariep Centre per vegetation unit:

Biome	Vegetation Unit	Number of Plants Endemic to the Centre
Desert	Helskloof Canyon Desert	5
Desert	Kahams Mountain Desert	8
Desert	Lower Gariep Alluvial Vegetation	2
Desert	Northern Nababiepsberge Mountain Desert	0
Fynbos	Stinkfonteinberge Quartzite Fynbos	3
Succulent Karoo	Central Richtersveld Mountain Shrubland	13
Succulent Karoo	Goariep Mountain Succulent Shrubland	0
Succulent Karoo	Kosiesberg Succulent Shrubland	4
Succulent Karoo	Lekkersing Succulent Shrubland	8
Succulent Karoo	Northern Richtersveld Scorpionstailveld	0
Succulent Karoo	Rooiberg Quartz Vygieveld	9
Succulent Karoo	Stinkfonteinberge Eastern Apron Shrubland	0
Succulent Karoo	Upper Annisvlakte Succulent Shrubland	0

Clearly the Conservancy contains a number of plant types in a unique combination that includes many endemics and endangered plant species. Lying at the heart of the Succulent Karoo, the highest biodiversity desert anywhere in the world, it clearly has universal value in terms of botanical heritage.

2.a.vii. Cultural landscape, transhumance pastoralism and architecture

In the Richtersveld the age old traditional way of life continues with a few variations to accommodate the needs of modern society. Herders or stock farmers are now connected to several small villages created as mission settlements and where the young and middle-aged live. As required under South African Law, this enables children of school going age to attend formal schooling and also provides limited opportunities for employment (many men work as migrant labourers in other parts

of the country). Community services, such as health clinics, are also located in the villages.

Generally the livestock posts are occupied and stocks managed by the elderly who are too old to participate in the formal economy and no longer have responsibility for children of school going age. Over weekends and during school holidays children and family members from other age groups are found at the posts and it is in this way that the tradition of transhumance is passed down from generation to generation, thus insuring it perpetuation of the traditional way of life.

In the past the KhoiKhoi were known as herders of cattle and sheep. In the harsh environment of the Richtersveld the goat, introduced to Southern Africa in colonial times fares better and most herds are now made up of a mixture of goats and sheep (mainly the mutton breed or ‘Dorper’) with goats, producers of both mutton and milk, predominating. In this precarious environment man, domestic beast and environment co-exist in a delicate balance that is testimony to the indigenous knowledge of the Nama herdsman who knows the ‘veld’ well and is able to judge its condition and when the time has come for the herd to move on. It is this knowledge and its continuing and continuous practice that calls for this desert area to be nominated for both its cultural and natural attributes.

Generally a Nama family will ‘possess’ three of four grazing camps through which it will move its herds in the course of a year. Each camp is surrounded by an area in which the stock farmer grazes his herds and in many cases the livestock of others in his village a service for which he is paid. Due to the low carrying capacity of the land, herds are small and must utilize large areas in order to be sustained. Additionally, significant distance must be travelled between grazing areas and during the seasonal movement of stock to and from the winter and summer grazing areas.

In the winter rainfall season herders will be found inland from the Orange River and will in the late winter and early summer move to one or two more camps that are also situated inland. Late summer grazing, until the arrival of the rains is usually alongside the river which becomes the only source of water once others have dried

up. Whilst technically and legally stock posts are allocated by a grazing committee, most family campsites are occupied by virtue of tradition and to all intent and purpose ‘belong’ to the family that occupies them. Whilst no detailed research has been done in the Conservancy, archaeological investigation of disused posts in other areas shows that the tradition of habitual seasonal occupation of the same site is longstanding and that many posts exhibit a centuries-long span of occupation. There is little reason to doubt that the same applies to the stock posts of the Richtersveld.

In the past, goods and houses were transported from post to post by pack oxen, and within living memory in the Richtersveld ox wagons have been used. In recent times these have been replaced by the donkey cart and the *bakkie* (pick-up truck). Not all herders own a bakkie and often have to pay a person from the village to assist with seasonal moves that, depending upon the distances involved can take up to a day to complete, considering that livestock have to be herded along the route.

The life of a full time herder is a lonely one with visits to the village being infrequent, perhaps once every month or two. It is also not unusual in the modern age to see women stock farming in their own right whilst their husbands are in cash employment elsewhere. Generally, however, in the Richtersveld Community Conservancy stock posts are occupied by couples who between them share responsibility for the herd and the household.

The tradition of migration between posts over the course of a year brings with it a particularly strong traditional association and attachment to the land and an appreciation amongst stock farmers of the ability of the land to support them and their beasts if it is treated with respect. Attached to this is a tradition of plant use for medicinal and other purposes and a strong oral traditional by which the landscape is defined and by which stories and practices are associated with it (Although at the time of writing these areas are still under-documented, there are plans to rectify this in the course of 2006 through a community based oral heritage documentation project for which funding has only recently been obtained).

The Nama also have a strong crafts tradition of which hut building and mat making is only a part. Known in the past for their leather clothing and other articles, leather work is one area in which they still manufacture artefacts. Others include textile printing which uses motifs taken from rock art and the environment. Traditional clothing, still worn by women on festive occasion consists of patchwork which is believed to have developed from the tradition of sewing together pieces of leather to create the *karos*, the large leather cloak of past times.

Tanie Sana and Oom Willem who together continue the transhumance lifestyle

Music and dance forms of the Nama, first mentioned by 17th Century Dutch East India Company (VOC) expeditions to Namaqualand (the northwestern region of South Africa), are also undergoing a renaissance. Contemporary folk music played on modern instruments, principally acoustic guitar and harmonica, and usually sung in Afrikaans, still reflects the rhythm and tone of the past when Nama dancers did a similar shuffle to what is today called the '*stapdans*' to the tune of instruments which are believed to have been similar to the didgeridoo or Andean pipes. These traditions are also tied to the land and reflect ancient ways of pre-Christian worship. Their perpetuation depends upon the continuation of the people's way of life and continued movement with the seasons and in the period since South African democracy in 1994 both music and dance have seen an upsurge in practice and are now encouraged in schools. The Richtersveld Heritage Project funded by

NORAD under the auspices of the Department of Environment and Tourism (DEA&T) has generated further enthusiasm through the production of videos on music and dancing and by providing study tours and training for selected field workers[4].

Crafts and an annual cultural festival in Port Nolloth are being encouraged by the government and have for the past several years received funding from the 'Investing in Culture' programme of the Department of Arts & Culture. Dancers and musicians from the Richtersveld regularly participate in national festivals and have travelled internationally.

The "Nama Step" Dance

2.a.viii. *The |Haru Oms* (please refer to Appendix C for a full report on the traditional Nama architecture in the Richtersveld)

The |*haru oms*, literally 'rush mat house', also commonly known by its Afrikaans name *matjieshut* or *matjieshuis* (little mat hut), is the single major physically identifiable cultural feature of the Richtersveld. The Richtersveld Community Conservancy and its surroundings is the only place where this structure is still built in substantial quantities although it can still be seen in places to the south of the Conservancy, around Steinkopf, Kommagas and Leliefontein, although in a form that varies considerably from the original. It is no longer used commonly by Nama

[4] The Heritage Project also funded a video to be shown at the World Parks Congress in Durban in 2003 that has helped to finalise the rolling out of funding from the Global Environment Facility (GEF), directed mostly at preserving the unqiue biological heritage of the Conservancy.

people in Namibia, although its method of construction is at least partially remembered in certain places and recently Richtersveld Community Conservancy elder hut builders travelled to //Gamaseb Communal Conservancy in Namibia with funding from the Swiss Development Corporation (SDC) through Conservation International to help revive the hut building process on the other side of the border.

The |*haru oms* is a portable structure, perhaps typical in its basic essentials of many of the structures erected by nomadic people around the globe, being a sparse wooden frame over which a covering is thrown. In the sense that it is relatively easily moved and its frame and covering are separate entities it is in essence a tent just as is for example the yurt of Central Asia, the Tepee of the plains Indians, or the hut of the Afar nomads of the Horn of Africa. As with all such structures what is unique about it is determined by local conditions, that is the climate and materials that exist in the environment. However, the |*haru oms* differs from other such abodes in its extremely intricate production process and use of fine rushes found in the region.

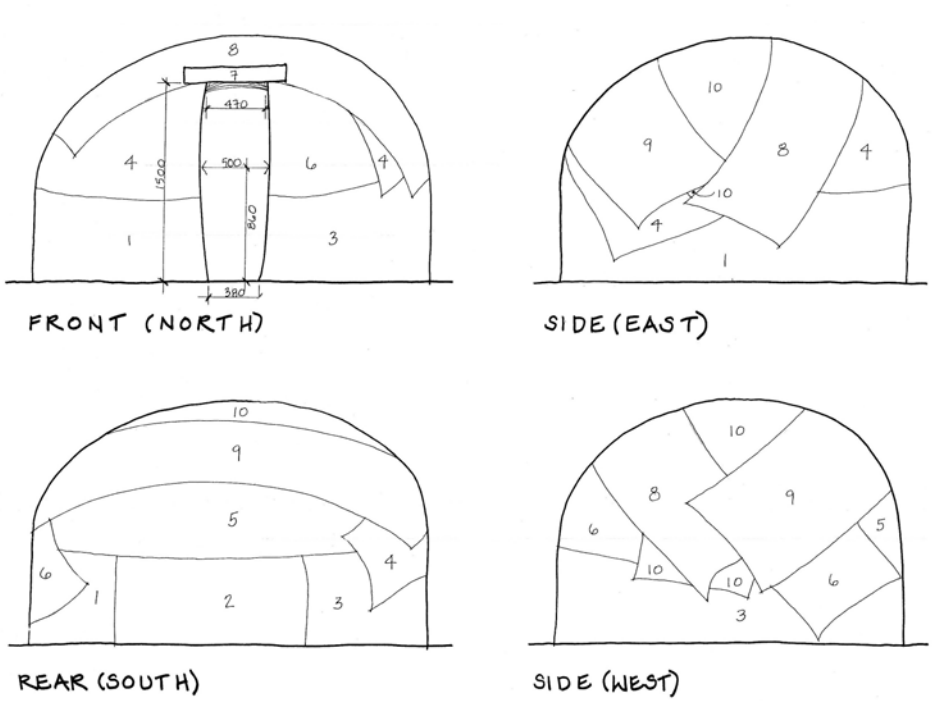


Diagram of typical |*haru oms* (from Hall A, Kaspar A and Whelan D. 2001. ‘'The Traditional Architecture of the Nama of the Richtersveld'. Copyright: McGregor Museum, Kimberley)

The |*haru oms* is a dome shaped structure, sometimes with the highest point over the main door rather than in the centre. The frame is constructed of light, bent staves the ends of which are placed in shallow holes. Two sets of staves are used one running at a 90^{o} angle to the other (See diagram above). The staves are bound to one another to provide structural rigidity and are then covered with mats. Huts come in a variety of sizes up to around 4m in diameter with the size traditionally determined by the number of mats required for a single cover over the frame rather than by any estimate of physical dimension. In the Richtersveld and other areas where huts are still manufactured, the traditional mat covering is made from one of three species of rush that grow locally, with coarser, more durable rushes often being used only on the lower part of the structure where wear-and-tear is greatest. (Historically there is evidence that in areas further to the south at certain seasons of the year hides were also used to cover huts providing better shelter in areas where there was high rainfall and strong winds.) Traditionally the door is a fairly low opening that is covered by a mat that can be rolled up and secured above it. In the warmer seasons a second door is often created on the opposite side of the structure.

The preparation of the rushes and mats of a |*haru oms*

In the rainy season in the Richtersveld a double layer of mats is sufficient to provide adequate shelter as a good, closely sewn mat made from well dried rushes will swell within a few minutes to provide adequate waterproofing before moisture from the rains is able to penetrate to the second layer of matting. In the warmer season a single layer of mats is adequate to provide well ventilated shade and a shelter. This dual purpose makes the hut type unique and highly adapted to the extreme environment and variable weather in that it keeps the inhabitants dry and warm in the cold winter and cool in the extremely hot summers.

A typical |*haru oms*

Traditionally the |*haru oms* serves as a place in which to sleep at night, store one's belongings and as shelter from the elements. It serves also as a cooking shelter when constructed in an only partially covered form. In contemporary villages of the Richtersveld the |*haru oms* is often found in conjunction with modern housing being used as additional sleeping accommodation or as a storeroom. In the villages, many cooking shelters are also found adjacent to the small cement brick or sheet metal homes that make up the bulk of building stock in the villages.

Currently few |*haru oms* are built entirely from traditional mats although the frame remains wooden and is sourced locally in the traditional way. Whilst most structures will have at least some rush mats other materials that are now used include hessian cloth (salvaged from bags or bought by the metre), shade cloth and black or other

plastic sheeting. In some instances thin sheet metal (corrugated-iron or metal salvaged from cans and drums) replaces the lowest cordon of mats. To provide greater security the roll-down mat door is sometimes replaced by a variation on a conventional door.

The traditional materials, however, are seeing a comeback, as a result of renewed pride in Nama culture and out of recognition of the high quality and better suitability of local natural materials. In the traditional method, frame staves are secured to one another using a fibre made from the bark of a certain tree. Today such thread is often hand-rolled from yarn recovered from unravelling hessian cloth, or rags torn into strips are used exclusively. The same hessian thread has also been used to replace indigenous fibre as the yarn used to sew the mats which are made using a long, broad needle that draws the thread through the rushes. This tradition is unique in Southern Africa where most cultures weave or plait rather than sew mats. In some areas there is colouring of rushes (using cow manure as a dye) for half of their length to create geometric patterns in finished mats, but this tradition is not evident in the Richtersveld where only occasionally there are deviations from a strictly lineal arrangement of rushes to create a geometric pattern in the ‘weave’ of the mat. Mats can vary in width from around 500mm to 1m and are usually three to four metres long. Width is dependent upon the length of rushes which is determined by the species of rush and grading of harvested rushes by length.

In the Richtersveld today mats are made by familial groups of women, usually four to five sisters or cousins, often overseen by an elder woman (an aunt or mother) who take orders for mats from members of their community. These women work alone at home with the ‘team’ producing sufficient mats to cover an order. If poles are required they are usually cut and bent by a male member of the same family. The reasons for intrusion of alternative materials into the building technique of the Nama are many and varied, but broadly relate to:

- Availability of indigenous materials relative to alternatives: Rushes generally grow in the high mountain valleys and are not easy to access. They require heavy labour to harvest and time and attention to prepare for manufacturing into mats.
- Cost of materials and ease of acquisition: Alternative materials are readily available in nearby towns (Springbok, Port Nolloth and Alexander Bay) and are often cheaper than rush mats. Mats have to be ordered from mat makers and in the case of a full hut may take several weeks to supply. The manufacturing process is labour intensive and costs are high.
- Durability: Alternative materials are more durable. Generally mats last only a few months before they blacken and have to be moved to the cooking hut where they will be used for a few months more.

Despite the above none of the alternative materials have the environmental advantages of the rush mat. None of them can provide both waterproof shelter in times of rain and well ventilated shade in times of heat. It is for this reason that the mat will remain in use as part of the covering of traditional shelters. In this regard it is interesting to note a comment made by the son of the first Commander of the Dutch colony who revisited Cape Town several years after spending his childhood there in the 1650s. He notes that many of the local KhoiKhoi used discarded canvas from ships sails to cover their homes. The intrusion of alternative materials is hence not a new phenomenon, it has been a factor for 350 years and yet the basic form and structural unit survive and traditional building techniques are perpetuated from generation to generation.

Further to the above, it is interesting to note that up until the 1950's colonists, farmers and missionaries, who settled in the Richtersveld used the |*haru oms* as shelter, its suitability to the environment being recognised as superior to traditional western modes of accommodation.

The |*haru oms* is today found both in the villages and out in the field. As has already been noted in the villages it enjoys a variety of uses, whilst in the field, ie: the core area of this site, it is used exclusively for personal shelter and cooking. In the villages the units appear to be permanent and research conducted in Khuboes

the 2001 showed little movement of units since a previous mapping exercise in 1995, although there was a significantly greater number of |*haru oms* over that six year period. This is indicative of the revival of cultural identity amongst the Nama in the post liberation period. Conversely |*haru oms* out in the field are still moved from stock post to stock post in the age old tradition of the south-western corner of Africa. The layout of stock posts follows a fairly typical tradition and occasionally combines a |*haru oms* with a structure that is not portable.

2.b History and Development

The describable history of the Richtersveld starts from 2000 million years ago when the first recognizable geological events occurred. Ever since and until modern day the unusual landscape and climate of the Richtersveld have influenced the modes of survival of the Richtersveld's plants and animals and, finally, also its people. All life in the Richtersveld has been and continues to be influenced by its severe temperature fluctuations, the arid, craggy, mountainous landscape, the difficult to negotiate sandy plains and the cool air and fog deposits which originate from the cold Benguela current of the Atlantic Ocean. These factors have made the Richtersveld a unique community of plants, animals and societies which have speciated and evolved in often radical ways to cope and succeed in one of Africa's most difficult environments. The Richtersveld Community Conservancy comprises a large area in the most undisturbed part of the Richtersveld representing all of the aforementioned factors.

Fossil records extend back to 300 million years and the evolution of life has tracked the dramatic changes in the environment over time. 17 million years ago much of the region was forested and inhabited by giant horses, bear-dogs, giant shrews and four-tusked elephants. As the forests disappeared and the region dried and became warmer, the biota evolved accordingly. Plants decreased in size, became highly adapted to specific microhabitats, found ways to conserve water in becoming succulent and strategised to create or seek out cooler aspects of the environment. Despite the aridity, the rich biodiversity and the permanent waters of the Orange River enabled humans to survive in the region since the Early Stone Age, as can be

seen from archaeological remains in the area such as stone tools and middens, some extending back to between 250,000 and 10,000 years ago.

The KhoiKhoi, the ancestors of the Nama people, once occupied the lands of the south-western part of Africa, (southern Namibia and most of what are today the Western and Northern Cape Provinces of South Africa). Together with those whom they called the San (Bushmen) and with whom they shared much of this area, they are generally regarded as the most ancient of human beings and are hence quite probably the custodians of the most ancient of cultures.

A nomadic people, perhaps better termed as practitioners of transhumance, bands of KhoiKhoi migrated with their herds of cattle and sheep over relatively short distances and within territories that belonged to the clan of which they were a part. Movement took place on a seasonal basis, and the people lived in portable homes, |*haru oms*, that were easily transported by the pack oxen they used to carry their possessions from camp to camp. The legacy of the KhoiKhoi is very evident in the landscape of the sub-continent in the form of archaeology and rock art, the latter of which, whilst not as well-known as that of the San, is nevertheless an important record of human occupation of the region.

The earliest written records concerning the KhoiKhoi date from the late 15th Century when European explorers first made their way down the south-western cost of Africa and east along its southern coast. From that time onwards there is a substantial record of the culture and practices of this unique people and a history of their societies under the impact firstly of contact with and later occupation by Europeans of various nationalities. The first substantial record of KhoiKhoi cultural practices was made by the German academic Kolbe, who in the 1690s spent time at the Cape studying the indigenous people. He was followed by sundry travellers, missionaries and officials who over the next two centuries left impressions of the KhoiKhoi in the form of diaries, travelogues, government records and formal publications. There is also a fairly substantial 20th Century academic literature on the KhoiKhoi which continues to grow in the current decade.

Colonial Expansion and Displacement

At the time of first contact with Europeans, the KhoiKhoi were organised into clans which, whilst sharing similar language and cultural practices, occupied different territories, often in competition with one another and the San. Family groupings or bands within a clan moved from camp to camp over the course of the seasons with movement depending upon the condition of the grazing and availability of water.

From fairly soon after the first rounding of the Cape in 1488 European travellers to and from the Far East put in along the southern and south-western coast of Africa to replenish water supplies and trade with the KhoiKhoi for much needed fresh meat.

It was due to the need for a permanent source of fresh meat and water and a place in which to grow fresh produce to replenish its ships on the longs voyage from Europe to the East that in 1652 the VOC established a permanent station in the region at what is today Cape Town. The early history of the resulting livestock trade with the local KhoiKhoi and attempts to grow vegetables in the Company Gardens at Cape Town is well documented. Trade in livestock quickly became the source of the first major conflicts between indigenous South Africans and Europeans as pressure was exerted on the local representatives of the VOC to build up substantial herds of sheep and cattle in anticipation of the annual visits of the outgoing and incoming Dutch fleets. This rapidly led to stock shortages on the side of the KhoiKhoi and coercion, or common theft, was often the only means whereby the Dutch could acquire livestock. Within a few years of the establishment of Cape Town the local KhoiKhoi had moved away from the settlement or become impoverished due to the loss of their livestock.

The result of livestock shortages and the inability of the Company to grow sufficient crops to replenish its fleets was that it was forced to find other means of acquiring the produce it needed. It was hence that in 1657 it introduced a system of freehold farming that created the first permanent European settlers on the sub-continent. In permitting the introduction of freehold farming the VOC envisaged agriculture on a similar scale and intensity to that which at the time prevailed in the Netherlands.

However, its policies, the economic conditions at the Cape and environmental considerations determined that this was not practical.

This issue was particularly important in the determination of the fate of the KhoiKhoi and the other indigenous peoples of South Africa in that extensive farming techniques rapidly developed amongst the colonists, requiring vast areas of land and determining that within two hundred years European settlement in and domination of KhoiKhoi lands affected all but a small portion of their former territories. Once outside of the immediate environs of Cape Town climatic conditions are such that even once the VOC had resolved the issues that determined that its early experiments in intensive agriculture were a failure, extensive farming remained the only option for a widely dispersed settler community, many of whom were sufficiently far from the Cape and hence government authority, to be able to function outside of the reach of direct Company authority. This provided opportunity for European settlement to expand regardless of efforts by the VOC and its successors to impose limits.

The frontiers of the colony at the Cape hence spread rapidly in an easterly and northerly direction with sporadic conflicts between colonists and the Company on the one hand and various clans of KhoiKhoi and San on the other. As land and livestock were lost most of the KhoiKhoi were out of desperation forced into the service of the Company (mainly in military service) or settler farmers. More often than not such employment was not an issue of choice, but of desperation and by the second half of the 18th Century provided KhoiKhoi with a status not much better than slavery. Worse still was the scourge of diseases carried to Africa by the Europeans, in particular the Smallpox which in 1713 decimated the indigenous population. Those, perhaps more fortunate, found refuge in mission stations the first of which was established in 1738 at Genadendal, not far from Cape Town. However, ultimately and regardless of the options which individual KhoiKhoi may have been able to exercise, or the fate which befell them regardless, within a few generations and through processes of disease, dispersal, acculturation and intermarriage with settlers, slaves and other indigenous South Africans independent KhoiKhoi identity, language and culture disappeared from the vast swathes of land it had dominated for thousands of years.

Those who were able to avoid incorporation within the boundaries of the colony moved steadily ahead of the expanding frontier of colonial settlement disrupting the way of life of those KhoiKhoi that had yet to experience prolonged contact with Europeans. In the east by the 1770's the colonial frontier came up against the more densely populated region occupied by the Xhosa and with the closing of that frontier the presence of people in that region who still identified themselves as KhoiKhoi rapidly disappeared. In the north the situation was somewhat different in that by the mid-18th Century European settlement came up against the barrier mountains of the escarpment, beyond which is Bushmanland, a vast and arid expanse with an unreliable climate that was not particularly attractive to European settlers. Due to the mountains Bushmanland was difficult to access and was populated by San people who proved far more difficult to dislodge than their counterparts in the south. The northern boundary of this region, the fringes of the Kalahari and Namib deserts, is defined by the Orange, or in the KhoiSan languages, Gariep River system, the lifeblood of modern South Africa and a place which for many years represented a haven which, if it could be reached across the arid expanse of Bushmanland, presented an opportunity for independent survival beyond the grasp of colonial authority. Many displaced southern KhoiKhoi sought refuge here along with deserters from various colonial armies, escaped or manumitted slaves, convicts, criminals and others who had cause to make a life outside the colony.

The middle reaches of the Gariep were already occupied by KhoiKhoi and San peoples as was the extreme western portion where the Nama still live today. The constant flow of refugees from the colony to the River over a period of a century or more caused severe disruption of these populations and for a time the area was subject to the predations of bands of brigands followed by the stabilising, but equally disruptive influence of missionaries who began operating along the Gariep in the first decade of the 19th century. The brigandage and mix of population in the middle reaches of the Orange River along with the influences brought in by outsiders saw a substantial and rapid dilution of traditional KhoiKhoi culture and identity with continuing degradation during the course of the 19th Century as outside influence increased and the area was absorbed into the colony in stages in the

latter half of the 19thCentury, ultimately leading to the almost complete disappearance of languages and identity early in the 20th Century.

The Namas of the Richtersveld

The 20th Century was a particularly dark time in the history of South Africa. For the surviving KhoiKhoi it was a period when their continued presence was denied by successive governments and eventually defined out of existence through its exclusion from the apartheid panoply of races and active suppression by being subsumed into the 'Coloured' racial category, a classification created for people of mixed descent. In the 20th Century South Africans of all backgrounds were educated to believe that the KhoiKhoi were extinct surviving only as a proportion of the origins of the Coloured community, and at that a percentage that most descendants of the KhoiKhoi were encouraged to deny as the authorities sought to ensure that yet another racial identity did not surface to complicate an already unwieldy ideology.

Notwithstanding the 20th Century experience, the post-liberation period (since 1994) has seen the re-emergence of KhoiKhoi identity amongst so-called coloured people many of whom are showing an interest in rediscovery of roots in the pre-colonial indigenous communities of Southern Africa. It has also seen the re-emergence of the Nama, the last of the KhoiKhoi who still live and practice their culture along the west coast Africa.

The home of the Nama is an undefined region that lies along the west coast of Africa stretching inland to well above the continent's western escarpment. It includes the north-western parts of both the Western and Northern Cape Provinces of South Africa, referred to in the vernacular as Namaqualand, and much of southern Namibia. Some older maps show 'Greater' Namaqualand to be an area straddling the border of Namibia and South Africa, while 'Smaller' Namaqualand is confined to the South African side. It is a beautiful, but inhospitable land with a rough terrain and unpredictable climate and vast, unpopulated areas.

The part of the Namaqualand into which the Richtersveld falls became part of the Cape Colony in 1847 when Britain extended the boundary in the north-west to the Orange River. The area had been subject to European influences since the last quarter of the 1600's when the first Dutch explorers reach the mouth of the Gariep. By the time of British annexation framers and missionaries had been a permanent feature of the area for at least a half century. The Germans occupation of northern Namaqualand in the 1880s also followed earlier penetration by Europeans, but nevertheless, by the early 20th Century the area was the only one where a substantial KhoiKhoi community survived with its identity, language and culture relatively intact. Although impacted upon by the disruptions caused in the lands further to the south and prolonged migration and incorporation of refuges from that area, as well as by the incorporation of their own lands into the British and German colonies, probably due to its remoteness and isolation, impact was not as heavily felt as outside the formerly referred to 'Coloured' Reserve'.

At the dawn of the new century one small part of the larger region of Namaqualand remains the only place where all three of the components of language, cultural practice and identity remain strongly routed in the people. This is the Richtersveld.

In other places, most notably across the Gariep in Namibia language is still strong, but transhumance and traditional building techniques are no longer practiced. Small pockets of Nama also survive in South Africa to the south and east of the Richtersveld, but once again have not retained the strength of culture found there and are largely differentiated from other South Africans only because they speak a different language, although usually in a 'broken' form.

More so than the rest of Namaqualand, the Richtersveld is a place of isolation and refuge. It is the connection between the environment and topography of the Richtersveld that has determined that in this area in particular a once extensive people survives and can continue to do so. The Richtersveld is drier, and due to its mountains more inaccessible and remote than the surrounding parts of Namaqualand. Until the recent popularity of 4x4 vehicles, it was an area into which few other South Africans could or desired to penetrate. Today most do so only for short periods of time for recreational purposes.

The land is not suited to commercial farming other than at certain points along the banks of the Gariep and mining is the only modern industry that has a presence in the area. This unique isolation and the ability of the people to adapt to and survive in an environment that has few attractions to outsiders has determined that it is here more than anywhere that KhoiKhoi identity and cultural practice is most intact and survives in its most viable form.

In the 1940's another group of "coloured" people arrived from an area approximately 400 kilometres to the east. This group of people had both white and KhoiKhoi ancestry and were referred to as the *Bosluis Basters*. Because of their mixed blood these Afrikaans-speaking sheep farmers were evicted from their lands in the east and sent on a great trek with their ox wagons to an area which the government had decided would be best for what they viewed a disgraceful group of people – the rugged, nearly waterless mountains of the Richtersveld. The Bosluis Basters endured the trek and ended their journey in what today is the town of Eksteenfontein (administrative headquarters of the Conservancy) where survivors from the great trek still remain to this day. There they met the Nama people along side whom they were ordered to live and the two groups had an uneasy beginning which over the years has evolved into a partnership for land ownership in the modern-day Sida !hub Communal Property Association (CPA).

It has been a long journey for the people of the Richtersveld and one that has only recently been resolved in their favour with the restitution of title to the land that they occupy having taken place in 2003. Security of land tenure has determined that the culture and its practice are more secure than it has been for several hundred years. The people are now firmly the custodians of their own destiny determining how their land is used and are doing so in the firm knowledge that they alone have a right to use it. This has enabled the community to continue its predominantly pastoral livelihoods and to take the decision to set aside 160,000 hectares of well preserved land as a conservancy for the conservation of the area's rich diversity of succulent plants and the preservation of traditional ways of life and the transhumance lifestyle of the Nama.

The years since the dawn of democracy in South Africa in 1994 have seen revival of many cultural practices suppressed under apartheid, but remembered by the older generation. The Nama language has also strengthened and is more openly spoken than was the case at a time when it was the subject of ridicule. Its introduction as a subject in local primary schools along with aspects of local culture being incorporated into the arts and culture curriculum bode well for the future and it is particularly interesting to note the role that young people have played in driving the process of nomination of part of the Richtersveld as a World Heritage Site, something that is indicative of a growing awareness of and pride in heritage.

Up until now the Nama way of life, although likely a mere ghost of its former self as it must have been before colonialism, has survived nonetheless in the Richtersveld. Therefore, the declaration of the Richtersveld Community Conservancy as a World Heritage Site will add power to perhaps the most remarkable aspect of human life in the Richtersveld, one that sends a message to indigenous cultures elsewhere in the world, namely the triumph of ancient human lifestyles over adversity, hardship, marginalisation of all kinds, institutional brutality and the onslaught of westernisation and globalisation.

The History of the Richtersveld Community Conservancy

The process of creating the Richtersveld Community Conservancy consisted of several steps and was founded through an exhaustive public participation and community consultation process which involved the widest possible range of stakeholders and roleplayers. In a region and country where the history of dispossession is recent, complete involvement of the entire community has been necessary in order to give the Conservancy a strong and legitimate foundation. Because of the ecological and cultural value of the Conservancy area, support was provided by several conservation and heritage preservation organisations and service organisations such as Conservation International, GTZ/Transform, the Norwegian Agency for Development Cooperation (NORAD) and EcoAfrica.

The idea of creating a protected area first surfaced in writing in a Concept Paper for a GEF Small Grant that was submitted in early 1998 after extensive consultation

with the then Northern Namaqualand Tourism Task Group (NNTTG) that later evolved into the Richtersveld Tourism Association (RTA). Other groups took up the idea at various other stages, including the Eksteenfontein Youth Group. In 1999 a discussion group was created to discuss the possibility of a World Heritage Site. But the strongest thrust came during the Integrated Development Planning (IDP) process conducted by the Richtersveld Transitional Council in 1999 and 2000 when the idea to form a communal heritage area received widespread support from community organisations and the broader community itself, leading to the Richtersveld Conservancy being included in the IDP as a Land Development Objective (LDO).

Generally speaking, the following series of progressive events marked the development of the Richtersveld Community Conservancy:

- **1998**: A Concept Paper was developed by EcoAfrica in consultation with the Northern Namaqualand Tourism Task Group (NNTTG) and submitted to the Global Environment Facility (GEF) in January 1998. Later the same year a Reference Group was elected to develop a Management Plan for the proposed Richtersveld Community Heritage Area.
- **2000**: Incorporation of the Richtersveld Community Conservancy/Heritage Area into the first Integrated Development Plan (IDP) was produced by the Richtersveld Transitional Council that was incorporated later that year into the broader Richtersveld Municipality..
- **2001**: The First Operational Plan was developed for the Heritage Area.
- **2002**: The Richtersveld Community Heritage Area evolved into a “Community Conservancy” and was included in the 2002 Richtersveld IDP.
- **2002**: First Concept Management Plan was developed.
- **2002**: The Richtersveld Community Conservancy was included in 2003 Richtersveld IDP.
- **2003**: Second Concept Management Plan was developed.
- **2003/2004**: Traditional cultural ties with //Gamaseb were revived through historic cross-border trips to the Bondelswarts community of Namibia’s //Gamaseb Communal Conservancy.

- **2004**: Third Concept Management Plan was developed. This was presented to and accepted by the Richtersveld Community.
- **2004**: A new structure called the Management Committee was elected to replace the temporary Reference Group and to implement the Management Plan for a Richtersveld Community Conservancy.
- **2004**: Conservancy Manager and Administrative Officer were appointed.
- **2004**: A Feasibility Study for a World Heritage Site in the Richtersveld was completed. Funding is made available for a full nomination.
- **2005**: Northern Cape Province opens discussions with the Management Committee over handing over the Helskloof Provincial Reserve for inclusion in the Conservancy and to be managed by the Conservancy Management.
- **2005**: Government support arrives to develop infrastructure. Department of Environmental Affairs and Tourism (DEA&T) allocates 6 million Rand (equivalent to $1 million) to the development of protective measures, signage, patrol roads and demarcated campsites in the Conservancy.
- **2005**: Richtersveld Community Conservancy is proposed as a World Heritage Site following numerous earlier meetings and references in the IDP and the Annual Report of the Richtersveld Sida !hub Community Property Association (CPA).
- **2005**: Process begins to declare the Richtersveld Community Conservancy as a formally gazetted Heritage Area.

Currently, the Richtersveld Community Conservancy is gaining national and international appeal as South Africa's last wild place where one can experience wilderness and gain insight into different cultures and traditional pastoralism. Campsites have been demarcated, regulations are in place, and entrance fees are now charged for people entering and camping in the Conservancy. It remains first and foremost a biological reserve receptive to researchers and scientists who visit from around the world and a research station is being developed. It also remains a stronghold for a threatened culture and way of life, protecting the land and local people against exploitation by others.

History of discussions around World Heritage in the Richtersveld

The period post-1994 in South Africa saw sweeping changes and fundamental transformations as the government achieved democracy. One of these changes was a shift toward a renewed appreciation of the cultural and natural heritage and its need for public recognition and protection. As a result, South Africa ratified the World Heritage Convention in 1997 and has demonstrated the value it places on cultural and natural heritage, through the National Heritage Resources Act of 1999 (which replaced the outdated National Monuments Act), the National Heritage Convention Act of 1999 and the World Heritage Convention Act of 1999 which paved the way for six of South Africa's most unique cultural and natural heritage areas being included on the World Heritage List. In addition, white papers and policies that were re-drafted post-1994 frequently acknowledge the importance of conserving the country's cultural and natural assets.

When South Africa signed the Convention, it compiled a tentative list, which included the Richtersveld Cultural Landscape. Since then, the idea of establishing a World Heritage Site in the Richtersveld has been a well discussed and researched one, specifically amongst the communities of the Richtersveld. Throughout the past few years it has been often mentioned in workshops, reports, Integrated Development Plans (IDPs), annual reports of the Richtersveld Sida !hub Community Property Association (CPA), newspapers and brochures concerning the region. The *Richtersveld News*, a local newspaper in the Richtersveld Municipality, has discussed the World Heritage Site process in five editions[5]. Not only were these articles written by or with contributions from local community members, but they served also to introduce the World Heritage Site process and to highlight the region's rich heritage and the case to be made for World Heritage Site status.

Additionally, the World Heritage Site process has been discussed at the local level in various workshops, including four workshops held specifically for the World

[5] Specific articles include: Hartney, D. "Training on the Island", *Richtersveld Nuus*, Nommer 3, Lente 2001; Van der Westhuizen, V., "Die Richtersveld NORAD Program", *Richtersveld Nuus*, Nommer 1, Herfs 2001; Hartney, D., "Preparing for World Heritage Standards", *Richtersveld Nuus*, Nommer 7, Somer 2002; Anon, "Global Environment Facility will support projects in the Richtersveld", *Richtersveld Nuus*, Nommer 2, Winter 2001; and Thornton, M. (November, 2005) "A World Heritage Site in the Richtersveld!", *Richtersveld Nuus*, Volume 2, Edition 1.

Heritage Site process in the Richtersveld[6]. Two specific workshops (the Integrated Conservation and Development Workshop in April, 2001 in Alexander Bay and the 'Unfolding the Big Picture' Workshop in May, 2002 in Cape Town) contributed to gathering input towards the process. The sentiment towards preserving heritage was voiced by local members of the Richtersveld community who presented short papers on the justification for a World Heritage Site in the Richtersveld. These workshops are still referred to as significant launching points for the World Heritage Site process and where enthusiasm for the recognition of heritage in the Richtersveld was officially recognised and further boosted.

The topic of World Heritage has been discussed in the management meetings of the Sida !hub Community Property Association (CPA), as well as council meetings of the Richtersveld Municipality. The NORAD Richtersveld Heritage Project and DEA&T have also specifically focused on putting culture high on the agenda as well as harnessing local support for World Heritage Site status. The Richtersveld Heritage Project was engaged over a three-year period in boosting cultural tourism and raising awareness for a World Heritage Site in the Richtersveld Community Conservancy. It did so by training cultural guides, setting up a museum network, supporting culture and nature-based small business, providing exposure and heritage training to selected individuals, collaborating with filming projects, recording cultural heritage, building links with relevant institutions and publishing articles on cultural heritage written by local people.

The Richtersveld Heritage Project was instrumental in collecting cultural and historical artefacts pertaining to the history of the Nama and Bosluis Baster people as well as recording valuable oral history from the older people. These important pieces are now preserved in the new Eksteenfontein Museum. The team members of the Richtersveld Heritage Project also participated in several activities to build

[6] The "Integrated Conservation and Development Workshop – Building Partnerships for Sustainable & Equitable Resource Use". Odendaal and Hartney (eds), 2001, was held in Alexander Bay on 2-3 April, 2001;The Richtersveld "Unfolding the Big Picture Workshop" was held on 2-3 May 2002 in Cape Town; the workshop titled "Tentatively listed Richtersveld World Heritage Site" was held on 15 January 2002 on site in the town of Sandrift in the Richtersveld; and a two day site workshop of the region titled "*Summary of discussions around the proposed Richtersveld World Heritage Site"* was held between 5-7 November, 2002.

links between the Conservancy and related existing World Heritage Sites. A field trip was undertaken to the Robben Island World Heritage Site where team members noted the similarities with the Conservancy in regards to segregation and social deprivation. A larger field trip was undertaken to Norway to learn about the similarities between the Nama people and the Sami people whose culture and cultural landscape is recognized in the Laponian Area World Heritage Site in Sweden. Links were also established with the Alta World Heritage Site Museum. These visits were vital in the establishing an understanding of and foundation for the World Heritage Process in the Richtersveld Community. Later the Environment Minister of Norway again invited Richtersvelders to participate in World Environment Day in Trondheim in 2004 where they had the opportunity to visit the emerging World Heritage Site of Vega which is now fully declared and operational.

Local government support for the Conservancy being a World Heritage Site is also demonstrated in local government publications, where the Richtersveld Municipality's IDPs of 2000, 2002, and 2003 include points about World Heritage Site nomination for the Richtersveld Community Conservancy. IDP 2002 states:

"As for the proposed Richtersveld World Heritage Site, a good relationship has been established with the Northern Cape Arts and Culture Department and a way forward has been identified: to conduct a feasibility study and investigate possible management options for the proposed (World Heritage) site."

To facilitate the on-going discussion of the World Heritage Site process is the Distance Learning and Information Sharing Tool (DLIST; www.dlist.org), an internet portal focusing on community heritage and development along the coast of Namibia, Angola and South Africa. It has been used as a forum for discussion for World Heritage Site in the Conservancy and also has facilitated the link across the Orange River to make the cultural and natural connection between the South African and Namibian cultural areas. To build on this process, cross border visits were initiated in 2003 and 2004, where local people of the Richtersveld travelled to //Gamaseb Conservancy and the town of Warmbad to strengthen the cross border revival of Nama culture.

3. Justification

Until recently, the harsh lands of South Africa's northwestern border with Namibia were regarded by many as a forbidding wasteland. However, closer examination revealed a mountainous desert alive with thousands of species of unusual succulent plants, many proving to be endemic, and a unique pastoral culture spanning back two thousand years to the early transition from hunter gatherer to pastoral livelihoods of a branch of KhoiKhoi, known as the Nama people. The Richtersveld National Park was developed to preserve components of the biodiversity and wilderness and the Nama culture, architecture, language and transhumance livelihoods gained recognition as a very special part of South Africa's social diversity. These two aspects of the Richtersveld – culture and nature – have revealed themselves as being inextricable from each other. In the Richtersveld, humans and their traditional livelihoods have become part of the environment and, conversely, the environment has shaped human culture through thousands of years of survival and growth in an extreme environment with limited water, the impossibility of agriculture and severe temperature conditions.

What has emerged is a community-owned and -managed protected area comprising one of the richest and scientifically most important areas in the Succulent Karoo Biome and the last remaining stronghold of Nama people living a transhumance existence. This area, called the Richtersveld Community Conservancy, is justified in being including the World Heritage Site list, as an important natural and cultural site of outstanding universal value. This justification for inclusion in the World Heritage list, is significantly supported by reports by IUCN, ICOMOS, and UNEP pertaining to "filling the gaps." In this regard – filling gaps where the World Heritage Site list has little or no representation – the Conservancy's rich and unique biodiversity, cultural landscape and examples of traditional human settlement and interactions with the environment provide sound evidence for why it can fill these gaps in many ways and be justifiably enscripted as a World Heritage Site.

The recognition of the Richtersveld Community Conservancy's biological importance by international conservation bodies is wide and strong. The Succulent

Karoo, of which the Richtersveld Community Conservancy is a core area, is one of only 34 Biodiversity Hotspots worldwide, as recognized by Conservation International. It is one of only two to exist in a desert. It is one of only two to be based entirely on high floral richness, endemism and degree of threat. It is a cold mountain desert adorned with thousands of succulents which, under spring blossom, turn an arid expanse into a multi-coloured wonder. Endemic to the Richtersveld, almost all of the world's population of *Aloe pillansii,* a flagship species for the region growing up to ten metres high, exists inside of the Richtersveld Community Conservancy. It is a threatened species and one of few species believed to be decreasing as a direct result of climate change. But the most significant ecological feature of the Richtersveld is its succulent species numbers and endemism. It is well documented that the Gariep Centre of Plant Endemism has the richest variety of succulent plants (primarily the *Mesembryanthmaceae* family) on earth and the Conservancy is considered a central part of the Centre. 60% are known to be endemic just to the region, and estimates of species numbers and endemism rates are regarded as conservative, since new species are being found and large areas remain unstudied. In years to come, it is certain that new species will be uncovered. The Gariep Centre and the Richtersveld are also considered important to science in regard to evolutionary processes, with many succulent groups in states of active speciation.

According to the IUCN's report entitled, **"The World Heritage List. Future priorities for a credible and complete list of natural and mixed sites (April, 2004)"**, there are major gaps in the World Heritage List in the Cold Winter Deserts category. The number of natural / mixed sites by Udvardy Biomes shows alarmingly that there is not one cold winter desert included in the World Heritage list, and the Succulent Karoo is specifically discussed as a notable Udvardy Biogeographical Province not included on the list. More specifically, IUCN/SSC Global Habitat Analysis determined that of 10 main habitat types suggested to be priorities for World Heritage inclusion, one is the Succulent Karoo. Of World Wildlife Fund's Global 200 Ecoregions not represented, one is the Karoo Desert (another being the Benguela Current, as a marine site, which borders the Karoo and Namib deserts and determines much of the climate of the Succulent Karoo). Regarding Conservation International's Biodiversity Hotspots, the Succulent Karoo is one of

only three of the world's designated 25 hotspots not to have World Heritage Site status. The Succulent Karoo is also a Centre of Plant Diversity not included as a World Heritage Site.

The **"Global Overview of Protected Areas on the World Heritage List of Particular Importance for Biodiversity (November, 2000)"** highlights species richness, endemism, threatened species as crucial areas of focus for conservation and World Heritage status, specifically to "natural criteria iv". The report identified the Succulent Karoo as one of four deserts in the world which should be considered for World Heritage Site inscription and one of only fourteen specifically named areas which demand attention for inscription as a World Heritage Site. Since it highlights as an emphasis "Representation" (of ecosystems, landscapes, habitat, and species conservation through effective Protected Area systems and ecological networks), then the Richtersveld Community Conservancy becomes a logical inscription. In summary, most literature regarding gaps in the World Heritage Site list, make direct reference to the Succulent Karoo as a priority. With the Richtersveld Community Conservancy as arguably the richest component of the Succulent Karoo Biome, the Conservancy will well represent the World Heritage Convention as a fully justifiable site.

From a cultural standpoint, the Richtersveld Community Conservancy is the last refuge of Nama people living a transhumance lifestyle. This occurs no place else in South Africa. It is also one of the few places in South Africa where the language of Nama remains widely spoken. It is the only place remaining where the Nama still reside in intricately constructed portable rush domehuts called |*haru oms*. It is also the only place left in South Africa where pastoral people reside in large communal traditional lands. What exists in the Richtersveld Community Conservancy is an outstanding representation of human interrelationships with the environment, in this case a fiercely harsh environment, and a lasting testimony to a way of life – transhumance. The Nama's pastoralist lifestyle is one of the earliest forms of livelihood where humans have control over the environment. The traditional management systems have over two thousand years conserved through sustainable use of the grazing resource a large area of Succulent Karoo vegetation.

The Richtersveld Community Conservancy is a unique, threatened, and globally significant cultural landscape. In Africa in particular, there is little recognition of traditional cultural landscapes, architecture and the age-old pastoral way of life. Transhumance has been identified as an element underrepresented in the World Heritage list, and it is transhumance which perhaps best describes the pastoral way of the life which still endures amongst the Nama people. The ICOMOS analysis, **"The World Heritage List: Filling the Gaps – an Action Plan for the Future (February, 2004)** supports this argument in stating, "Surviving nomadic pastoralist cultures are currently represented by a single inscription, that of the Laponian Area (Sweden)…" Africa – home to some of the most diverse and widespread pastoral societies on earth – has not one site. More generally, the analysis highlights that African peoples seem to come up short in comparison to Europeans and others. Additionally, **The Expert Meetings on Global Strategy (1994-1998)** stated that: "all living cultures – and especially "traditional" ones – with their depth, their wealth, their complexity, and their diverse relationships with their environment, figured very little on the list…" Africa, a continent with more ethnic groups and languages than any other, has only a handful of the occurrences on the list of cultural sites (as opposed to almost 50% by Europe), and Southern Africa has relatively few cultural sites which is astonishing for a region with such cultural diversity.

The ICOMOS analysis highlighted certain areas as having high potential to fill the gaps in the World Heritage list. These include "Human Coexistence with the Land" (movement of people (nomadism); settlement; modes of subsistence; and technological evolution) and "Human Beings in Society" (human interaction; cultural coexistence; spirituality; and creative expression). It can well be argued that the Richtersveld has all of these factors. It represents the "movement of people" through the transhumance existence of seasonal movement of livestock and home between grazing areas. It represents "settlement and technological evolution" through the enduring complex design of the |*haru oms* architecture. It represents "modes of subsistence" through two thousand years of surviving from livestock raising. It represent "human interaction and cultural coexistence" through the relationship between the Nama and the *Bosluis Basters*, a historically disadvantaged group "discarded" by the Apartheid Government to survive in the remote land of the Nama. It represents "spirituality and creative expression" as

etched in the petroglyphs, as demonstrated in ancient Nama graves throughout the Richtersveld Community Conservancy, as continuing in the oral tradition of specific locations, such as the fabled sinkhole called Wondergat.

3.a Criteria (using Operational Guidelines of February 2005)

Cultural criterion (iv)

The landscape of seasonal movements spanning back millennia illustrates effectively a period of time when the environment, the climate and the seasons determined largely where humans lived and how they lived. This has not changed for the Nama who today must move home, livestock and family from high-country winter grazing areas to lower summer areas. The ancient gravesites, relicts of former livestock posts, migration trails, wells, petroglyphs and legend and oral myth attached to mountains, sinkholes, springs and, not least, the !Gariep (Orange) River all make up a cultural landscape that has been active for two thousand years. And this way of life extends back into the history of most people on earth before humans were able to take better control over their environment.

Cultural Landscape Criterion

Annex 3 of the Operational Guidelines, describing the inherent human and environmental relationships in Cultural Landscapes reads:

"The continued existence of traditional forms of land-use supports biological diversity in many regions of the world. The protection of traditional landscapes is therefore helpful in maintaining biological diversity."

The Cultural Landscape of the Richtersveld demonstrates well the ability of the Nama to maintain traditional pastoral livelihoods without adversely impacting on the environment. This is especially important, perhaps more so than in other regions, in light of the status of their environment as a Biodiversity Hotspot. With Nama habitation and pastoralism spanning back two thousand years and the Richtersveld Community Conservancy regarded as a refuge for the Succulent Karoo flora, this is

testimony to and a valuable example of the ability of humans to utilize their natural resources in a sustainable manner so as not to adversely affect the environment. The history of the Nama's existence in the Conservancy area and their traditional management of the Conservancy land is proof of this.

Additionally, the |*haru oms* is a form of architecture not reproduced by any other group of people except the Nama. Recognized as one of 100 endangered sites by World Monuments Watch, the |*haru oms* requires an intricate construction process and indigenous knowledge which has been largely lost in other Nama areas outside of the Richtersveld. The |*haru oms* in the Richtersveld Community Conservancy remain a part of the semi-nomadic lifestyle of the Nama pastoralists. Being constructed out of reed mats and light crafted poles, materials of which are only found in the Nama region, the |*haru oms* was designed to be easily disassembled, transported and erected again. This mobile design was necessary to support their transhumance lifestyle of the movement of family, home and livestock according to the seasons.

Cultural criterion (v)

The culture and transhumance of the Nama represents one of humanity's oldest forms of land use. The Nama people are the last of the KhoiKhoi people (offshoots of the original KhoiSan), once a widespread nomadic pastoral group, to continue living in nomadic pastoral tradition. As ancestors of the earliest inhabitants of southern Africa, the Nama of the Richtersveld have maintained a cultural tradition that is wholly unique in its customs and lifestyle. The Nama traditional transhumance land use of pastoralism has been lost amongst other Nama people outside of the Richtersveld Communal Lands and also has been lost by all other South African peoples. The Nama of the Richtersveld bear the only surviving testimony to a way of life that formerly spanned amongst their KhoiKhoi ancestors from the Cape of Good Hope to current day Namibia and amongst other African peoples throughout the country. Despite the survival of this land use and age-old relationship with the environment, the Nama have faced and continue to face enormous pressure. Colonialism and institutionalized racism of Apartheid sought to eradicate cultural identity and tradition, often denouncing Nama ways as primitive

and worthless. Social pressures, the lure of better lives in cities, poverty and the impact of modern forms of architecture and livelihoods such as diamond mining on the use of the |*haru oms* and on pastoralism continue to pose threats to the traditional Nama way of life.

Natural criterion (ix)

The richness and uniqueness of the Richtersveld Community Conservancy's flora is a result of a number of environmental factors coming together to create a unique and dynamic environment. Cold fog deposits from the Atlantic, an arid environment, varied topography and temperature fluctuations have resulted in biodiversity that has had to evolve specifically to survive in such an unusual and extreme environment. Flora, in particular, have radiated into a wide variety of species and families adapted to exist in highly specific microenvironments, some occurring only on certain mountaintops or quartz fields. The methods used by plants for conserving water, shielding from the sun and protecting themselves from high winds are seen in the morphology, physiology, distribution ranges and the relationships between particular species and their specific microenvironment. In some species such as the *Aloe dichotoma* the population densities differ between summer and winter rainfall zones. The Conservancy exists in the transition between these two rainfall zones and as such is a living laboratory of the *Aloe dichotoma*, as well as the *Aloe pillansii*, a near endemic to the Conservancy, and many other species.

Natural criterion (x)

The Succulent Karoo Region is one of the world's 34 Biodiversity Hotspots. This is based on the extraordinary diversity and endemism rates in the biome which is home to an estimated 6,356 species of plants of which 2,439 are endemic. A 38.4% endemism rate is one of the highest in the world, and the highest of any desert. 40% of the world's 10,000 species of succulents are found in the Succulent Karoo. The Succulent Karoo has an exceptionally large species to genus ratio, especially for an arid region. Over 63 genera of the Mesembryanthemaceae are endemic to the Succulent Karoo Region, a very high number for a floral region of its size. Of the

Succulent Karoo, the Gariep Centre is regarded as the richest with over 2700 species and with 80% of its endemics being succulents. The Richtersveld Community Conservancy captures a core area of the Gariep Centre and provides a diversity of environments including mountains, quartz fields and valleys enabling a wide range of species to exist. These attributes make the Richtersveld Community Conservancy one of the most important properties for biodiversity conservation, a sentiment echoed by IUCN and Conservation International amongst others.

Pachypodium namaquanum (halfmens) and *Aloe pillansii*: two flagship species of the Richtersveld

The Richtersveld also has specific species of great value culturally and scientifically. *Pachypodium namaquanum* is also known as the “halfmens” is one of the flagship species for the desert regions of southern Namibia and northern South Africa, and is regarded highly in Nama culture[7]. The Richtersveld Community Conservancy represents a refuge for a large population of halfmens, as well as nearly all of the known specimens of *Aloe pillansii*, an equally large and impressive plant thought to be decreasing in numbers as a result of climate change. In summary, some of the highest endemism rates in the world, two highly endangered

[7] The halfmens plant attains a length and stature that reminds one of a human over a distance. It has a heavy head that is always bend to the north, likely to increase solarisation in the winter months (it loses the leaves in summer as a measure to combat water loss). This overall appearance gave rise to the legend that the halfmens plants really are humans who fled across the !Gariep from Namibia and then turned into plants, now longingly staring to the north where their ancestors came from, unable to be reunited with them. In that sense the plant is very much an allegory of the Nama nation itself that has become divided by an international border.

flagship species, the richest variety of succulents on earth, florally the richest arid region on earth, and the extraordinary richness of the Mesembryanthemaceae family justifies that the Richtersveld Community Conservancy meets this criterion and is universally valuable to science and conservation.

3.b Proposed Statement of Outstanding Universal Value

The Richtersveld has the highest botanical diversity and rates of endemism of any arid region representing more succulent flora than any other part of the world with plants exhibiting unique ecological techniques to enable them to survive in such an extreme environment, and a cultural landscape encompassing the two thousand year old transhumance pastoral livelihood of the Nama people and their sustainable use of and relationship with the environment of the Succulent Karoo Biodiversity Hotspot.

These factors together converge to present a unique environment of one of the world's most important sites for the conservation and study of succulent flora and the preservation of a livelihood which was once a common way of life throughout the world.

3.c. Comparative Analysis

Several existing World Heritage Sites can be compared to the Richtersveld in regards to biodiversity, cultural heritage and cultural landscape. Through a comparative analysis, numerous similarities emerge between other sites and the Conservancy which reveal it as not only comparable in terms of World Heritage justification but also highly unique. The analysis underpinned just how different and valuable the Conservancy is, when compared to other deserts and other pastoral cultures on the list. Compared World Heritage Sites included the following:

- Laponian Area, Sweden
- Hortobagy National Park, Hungary
- Pyrenees – Mont Perdu, France and Spain
- Madriu-Perafita-Claror Valley, Andorra

- Orkhon Valley Cultural Landscape, Mongolia

- Pirin National Park, Bulgaria
- Valle de Mai Nature Reserve, Seychelles
- Arabian Oryx Sanctuary, Oman
- Banc d'Arguin National Park – Mauritania
- Cape Floral Kingdom, South Africa

Five of the above sites can be compared to the Richtersveld in regards to cultural heritage of pastoral communities and cultural landscapes. The Laponian Area of Sweden, the Hortobagy National Park of Hungary, Madriu-Perafita-Claror Valley of Andorra, Orkhon Valley Cultural Landscape of Mongolia, and the Pyrenees – Mont Perdu Area of France and Spain are described as cultural landscapes with traditional societies living in such a way that is rarely found in modern times. They are described as remnants of what was once a widespread and common lifestyle. The people of both the Richtersveld and the Laponian Area and Orkhon Valley undoubtedly live hard lives under extreme climatic conditions in great wilderness areas of profound beauty and ruggedness. They exist because of their remoteness and the will of their people to carry on traditional ways of life. All aforementioned sites also demonstrate a traditional way of life enduring despite of enormous social change elsewhere in their respective countries.

The Nama people, however, represent one of the oldest groups of people on earth. As descendants of the KhoiKhoi, they are of Africa's oldest people, whose culture spans back to well before the Bantu expansion from West and Central Africa. Southern Africa has been the home of the Nama and their KhoiKhoi ancestors since the earliest periods of humanity. Their "click-sounding" language is purely indigenous to Africa, and together with the languages of the San people and a few scattered hunter-gatherer tribes such as the Hadza, Sandawe and Pygmy people of East and Central Africa, is not only endangered but a true symbol of their ancient, ancestral link to the continent. It is this ancient characteristic of the Nama which truly sets it apart from many other groups of people and pastoral communities. Even the Masai pastoralists of East Africa, which are considered to be a symbol of

traditional African pastoralism, are very young in their history in Tanzania and Kenya in comparison to the Nama.

Several of the cultural sites mentioned above have been also described in regards to the value of their traditional architecture, such as the summer settlements of the Madriu-Perafita-Claror Valley. The Richtersveld could be compared to numerous other sites in regards to the cultural significance of the |*haru oms.* However, in differing from other simple mud or traditional stone huts or structures, the |*haru oms* is an intricate type of building made by no other group except the Nama. The portable rush-mat covered domed hut is constructed in phases over several months in a complicated and communally involved process, and is listed by World Monuments Watch, alongside World Heritage Sites in Bam and Luxor, as one of the one hundred most endangered monuments.

Traditional cultures often transcend current political boundaries, as demonstrated by the sites in Hungary, Sweden, France and Spain. The Nama of the Richtersveld are no exception. Prior to the 1884 Berlin Conference, colonialism and subsequent Apartheid, the land of the Namas spanned the border between Namibia and South Africa with the Orange River (!Gariep in the language of the Nama) serving as a cultural epicentre. Despite a history of measures to sterilize cultural identity and the historic prevention of Nama people from crossing the border, transfrontier links remain in tact and are again strengthening. The transfrontier character of the Nama people provides an accurate representation of the many traditional areas across the continent disrupted by colonially designed political boundaries.

What else emerges from the comparative analysis is that four of the five sites are located in Europe. The Namas are African, representing well a continent where nomadic pastoralism and transhumance are deeply rooted in a multitude of cultures. And while pastoralism is practiced throughout the continent, nowhere are the pressures between traditional pastoral livelihood and modern society more evident than in the Richtersveld of South Africa, a country riding a fine line between two ways of life: the traditional and the modern. In this regard, the Richtersveld is outstanding in its testimony to a way of life largely extinct in most places and in its endurance to exist and thrive. In comparison between the Richtersveld and the

newly inscripted Madriu-Perafita-Claror Valley, one finds that the people of both areas have survived many social and economic changes which have challenged their ways of life. In fact, most of the mentioned sites represent the last pockets of traditional cultures in Hungary, Sweden, France, Spain and, indeed, South Africa, where, just as these European cultures were able to survive massive social pressures, the Namas - by virtue of the fact of living in so desolate a region - were able to emerge from colonialism and institutionalized racism under the Apartheid government with their culture in tact, even if continually threatened.

From a point of view of natural attributes, five sites can be compared to the Richtersveld. Clearly, the Cape Floral Kingdom has important similarities with the Succulent Karoo biome of the Richtersveld. Both biomes are distinctly Southern African, with vegetation existing in no other place on earth. Both, as recognized Biodiversity Hotspots, are extraordinary in regards to their plant life. However, the Richtersveld is a desert, and in biological terms, the richest desert on earth. Although the fynbos vegetation can boast a higher number of species than the Succulent Karoo, it is arguably more remarkable that the Succulent Karoo holds as many species as it does being an arid environment. Additionally, the Succulent Karoo is arguably more unusual in that there is no other truly similar vegetation type and environment, whereas the fynbos, despite its high levels of endemism, has close similarities to the kwongan vegetation of Southwestern Australia.

If one compares the Richtersveld to other winter-rainfall deserts, such as Morocco’s southern coastline, Chile’s southern Atacama and Baja California of Mexico, just the Namaqualand portion alone (with the Richtersveld as a core) of the Succulent Karoo has between four and six times as many species of plants. The other deserts are also lacking the great numbers of leafy succulents and bulbs which enable the Succulent Karoo desert to provide its impressive displays of blooming flowers. These other similar-sized winter-rainfall deserts, despite some interesting species, consist of mainly stem succulent plants such as cacti and euphorbia and stapeliads, and leafy shrubs, but lack the unique diversity of miniature, ‘contracted’ plants, such as tylecodons, crassulas and lithops which exist in the Succulent Karoo’s shallow quartz-stone fields and gravel plains and which give the area a habitat type and appearance unique to the biome.

Looking within the Succulent Karoo biome itself, there are strong cases for the Richtersveld as its richest component, often described as “a hotspot within a hotspot”. No other part of the Succulent Karoo can boast even near the numbers of succulent plant species as the Richtersveld’s Gariep Centre of Plant Diversity, which as just part of the greater Succulent Karoo Biome, has more succulent species at 448 than the entire Fynbos Biome’s 435. The Gariep Centre also boasts more succulent species than all other Centres of Plant Diversity, such as the Little Karoo, Knersvlakte and Hantam-Roggeveld. The Gariep Centre also has the highest number of total plant species (2700) in the biome, the highest endemism rate of total plant species (20.7%), and the highest number of Genera (27).

Comparison between Southern African Floral Regions and Endemism Centres with regard to succulent species numbers and endemism %

Region / Centre of Endemism	Species / infraspecific taxa	% of endemics
1. Succulent Karoo Region (Entire)	1,075	53.8%
Gariep Centre	**448**	**80%**
Knersvlakte Centre	111	74%
Little Karoo Centre	203	81%
Worcester-Robertson Karoo Centre	89	77.4%
Hantam-Roggeveld Centre	58	23.2%
2. Cape Floristic Region	435	7.8%
3. Maputaland-Pondoland Region	270	15%
4. Albany Centre	364	60.6%
5. Drakensburg Alpine Centre	20	5%
6. Barberton Centre	22	27.5%
7. Wolkberg Centre	25	19.2%
8. Sekhukhuneland Centre	15	15%
9. Soutpansberg Centre	21	46.6%
10. Chimanimani-Nyanga Centre	23	23%
11. Great Dyke Centre	5	20%
12. Kaokoveld Centre	73	45.6%
13. Griqualand Centre	13	32.5%

As the table above demonstrates, the Succulent Karoo is home to over one thousand endemic succulents. With more succulents than any other place in the world, the Succulent Karoo warrants global recognition for its natural heritage. What the table also shows is of the various centres of the Succulent Karoo the Gariep Centre attributes almost half of the endemic succulent species with an astounding 80% endemism rate. This more than doubles almost every other Region or Centre in Southern Africa, a part of the world renowned for succulent plants. With the Conservancy being a Core of the Gariep Centre, this comparison emphasizes the justification as having outstanding universal value to the world botanical estate.

Other deserts inscribed in the World Heritage Site List, such as Oman's Arabian Oryx Sanctuary or the Mauritania's Banc d'Arguin National Park, do not, despite other worthy attributes, demonstrate universal biological or ecological importance as dramatically or as quantitatively as the Richtersveld. In regards to diversity, species densities and rates of endemism reaching upwards of 40%, the Richtersveld, stands tallest of all the world's deserts. If natural aspects of the environments of the two above sites prove them justifiable for World Heritage inclusion, then the status of being one of only two deserts in the world to be a Biodiversity Hotspot should provide a very sound case for inclusion of the Richtersveld. Similarly, if the Pirin National Park of Bulgaria is regarded as universally outstanding for its endemic and rare species – which is impressive in its own right - it can reasonably be argued that the greater biologically diversity and uniqueness of the Richtersveld can be viewed as extraordinary.

A final comparison can be made between the Richtersveld and the Valle de Mai Nature Reserve of the Seychelles. The island's *coco de mer* is described as a universally significant and valuable species and rightly so. It is immediately evident the similarities between the high status of the *coco de mer* and the scientifically and culturally valuable *"*halfmens*" (Pachypodium namaquanum)* and *Aloe pillansii*, of which most of the world's population exist inside the Richtersveld Community Conservancy boundaries. All three species have enormously restricted habitats and all are also very large and charismatic species bearing powerful presences and cultural significance. They are flagship species for their respective environments,

severely threatened, and in the case of the *Aloe pillansii*, of great value to science, especially in regards to the impact of climate change on the global environment.

3.d. Integrity and Authenticity

Infrastructure and development are minimal in the Conservancy with only two small towns, Kuboes and Eksteenfontein, existing on the Southern and Western boundaries. Population of the two towns are very low and are unlikely to grow due to low carrying capacity of the land, lack of substantial water and in light of the general trend in the region of people moving towards larger urban centres and away from small villages such as these which offer few jobs and limited opportunity beyond minor livestock farming. Inside the Conservancy land, are only seasonal livestock posts and |*haru oms* of pastoralists. There are no paved roads in the area and all tourism development has fallen directly within the very strict regulations set forth by the Conservancy Management Committee, as well as municipal, provincial and national laws, such as the Environmental Conservation Act, National Heritage Resources Act and National Environmental Management Act, amongst others. All future developments, such as plans for a small eco-lodge, must carry out comprehensive and transparent Environmental Impact Assessments and Social Impact Assessments with exhaustive public participation. The integrity of the environment is such that an adjacent provincial reserve, the Nababiep (Helskloof) Reserve is soon to be taken under the Conservancy's management and boundaries.

In regards to Section IIE of the Operational Guidelines, the core area indeed is of sufficient size at 160,000 Hectares to encompass the most critical environments and the necessary diversity of environments to adequately protect the valuable flora of the Gariep Centre of Plant Endemism and Succulent Karoo Biodiversity Hotspot. The Conservancy boundaries were designed and approved according to such ecological parameters. The natural elements found within the boundaries are comprehensive with the entire Ploeberg, Stinkfontein, Blackface mountain ranges, numerous quartz fields, the Helskloof Canyon and a large untouched section of the Orange River all located within its boundaries. The Conservancy also includes all of the sub-biomes of the Succulent Karoo Biodiversity Hotspot, with the exception of

the coastal vegetation, which in the future can be included in the forthcoming creation of the Richtersveld Coastal Reserve, which was identified and written into the 2005 Land Use Plan of the Coastal Areas by the Sida !hub Community Property Association (CPA).

Additionally, the Conservancy holds the largest known population of *Aloe pillansii.* In regards to the Operational Guidelines' stipulation of freedom of adverse effects of development or neglect, there are no existing developments in the 160,000 ha Conservancy other than a small guesthouse and the seasonal livestock posts of the Nama and Bosluis Baster people. In regards to risk of neglect, the Conservancy lands have been cared for through sustainable pastoralism for two thousand years by the Nama and Bosluis Baster people of the Richtersveld. It was known long ago by them that to destroy or damage the environment would be to destroy their own livelihoods.

The Nara Document on Authenticity was used in this analysis of the integrity and authenticity of the Richtersveld Community Conservancy as a justifiable cultural World Heritage Site. Historically it has been the traditional home of the Nama people extending back to their earliest arrival out of what is now Botswana, as hunter gathers. Its remoteness and the lack of appeal, water and arable land prevented it from being overtaken by larger and stronger communities of Bantu Africans and later white settlers. During the Apartheid era, the land that is now the Richtersveld Community Conservancy was declared a non-white area and a so-called "coloured reserve". This not only prevented white people from moving in, but also prevented Nama and Bosluis Baster people from moving out and dispersing into other areas of the country. This policy was discriminate and had severe economic and social impacts on many of the people of the Richtersveld region, but also resulted in the Conservancy area being for all practical purposes free of white settlers. In this regard, the Conservancy lands continued to exist in much of the same way that it had for several generations.

The seasonal patterns of the Nama pastoralists have remained largely the same in the Conservancy area and no permanent settlements have been erected in the Conservancy area. The dynamic nature of Nama transhumance has been

preserved and is evident in the scattered seasonal livestock posts throughout the site. Additionally, the traditional rushmat domed hut, called the |*haru oms* is an authentic design developed exclusively by the Nama people, although in some cases copied by other tribes in Namibia and South Africa due to its practical design. Traditional |*haru oms* are today rare, and can only be found in the remote areas. The Richtersveld Community Conservancy and the town of Kuboes along its border represent one of the last places on earth in which Nama people reside in |*haru oms*. What was formerly a widespread form of abode, is now an endangered structure confined to the farthest reaches of the mountains. The design of the |*haru oms* has been studied and its status assessed by the Northern Cape Province's Department of Sport, Arts and Culture in 2001, the document for which is included in Appendix C.

The Richtersveld exists in a region which has been affected both culturally and naturally by several social, biophysical and economic factors. Of the greatest factors has been large scale open cast diamond mining which has defaced a significant part of the region. The cultural impacts too have been great creating over several decades a dependence on mining jobs with little alternatives for jobs or improvements to lives. Diamond mining, with historically little environmental regulation or regard for local communities, has left its scar on much of the northwest coast of South Africa. However, the Richtersveld Community Conservancy has never been mined for diamonds. It is also important to point out that it will never be mined. Not only is mining forbidden in Conservancy regulations and in contrast to all local and regional land use policies such as all versions of Integrated Development Plans, but the Conservancy also lies outside of the diamond deposit areas of the region. Mining of diamonds in the region is concentrated in areas where ancient oxbows of the Orange River existed. No such areas exist in the Conservancy – instead its stretches of the Orange River are comprised of deep canyons. Additionally, the Conservancy lands have been studied and assessed in the past for diamonds and it was determined that no deposits exist in the Conservancy area.

In short, geophysically, the Conservancy is not diamond country. As a result, the damage associated with mines in other parts of the region are absent from the

Conservancy and never made their mark there. Additionally and crucially, the large Communal Grazing Area which surrounds the Conservancy is also unmined and provides a necessary buffer zone around the Conservancy, and on its northern boundary lies the vast expanse of the mountainous and largely impenetrable regions of the Richtersveld National Park, serving as a natural physical buffer to the Conservancy. All of these factors provide evidence that mining cannot occur in the Conservancy and that the Conservancy is well ‘insulated’ from mining activities which occur elsewhere and a substantial distance from the Conservancy.

4. State of Conservation and Factors Affecting the Property

4.a. Present State of Conservation

The Succulent Karoo is poorly protected in South Africa in formally gazetted parks and reserves with only 2.5% included in national parks. It is also home to high numbers of threatened species, many of which are under threat because of their limited and confined microhabitats.

However, where sustainable grazing is practiced, the Succulent Karoo can be effectively conserved, as opposed to places where there is irreversible damage by other land uses such as human settlement, mining, unsustainable livestock farming and agriculture which pose the largest threats to the Succulent Karoo. In the Conservancy, one finds an in tact and floristically well representative area with no agriculture, mining and with sustainable grazing practices. Details on the Conservancy's conservation status and future plans are outlined in Section 5.

Details of the Succulent Karoo Biodiversity Hotspot

Original extent of the Succulent Karoo Biodiversity Hotspot	102,691 sq. km
Vegetation Remaining in the Succulent Karoo Biodiversity Hotspot	29,780 sq. km.
Area Protected	2,567 sq. km.
Total known plant species	6,356
Endemic Plant Species	2,439
Human population density	4 per sq. km.

4.b. Factors Affecting the Property

4.b (i) Development Pressures

There is very little development in the Core Area with most people residing in the two towns along its boundary: Kuboes and Eksteenfontein. These two towns have limits preventing them from growth, such as availability of water, employment opportunities and limited options for land use. Development in the region is mainly occurring in the larger urban centres, such as Port Nolloth, but in the interior of the

Richtersveld, including the Core Area and buffer zones, population is sparse and development limited by environmental and economic parameters.

One sector of growth and development which is facing the Conservancy is a welcome one: tourism. The only infrastructural development underway in the Conservancy is for the upgrading of eight campsites, upgrading of the existing guesthouse and the development of a small overnight wilderness hut. Despite the small size of these developments, environmental impact assessments were carried out on request of the Management Committee. Additionally, social and heritage impacts assessments were part of the process to ensure that any tourism development, no matter how small, does not infringe on the livelihoods of local pastoralists and is kept a suitable distance from seasonal livestock posts. To further ensure that tourism development is managed appropriately, a Tourism Plan and a Zoning Plan are being developed for the Conservancy. These plans will outline specifically the areas in which tourism can operate and under what conditions. Tourism pressure is specified in more detail in Section 4.b (iv) (Visitor/Tourism Pressures).

In all arid areas, desertification and overgrazing are significant issues. Elsewhere in Northern Cape Province and across the border in Namibia, there are visible signs of the environmental impacts of unsustainable use of the grazing resource and unwise land use practices leading to environmental deterioration. The Conservancy, as a result of its topography and traditional natural resource management remains in good condition. Pastoral goat and sheep herders also rotate herds between grazing areas to prevent overutilization of any particular area.

Theft and illegal harvesting of succulent plants poses a problem throughout the entire Succulent Karoo and Fynbos biomes. Theft of reptiles, such as tortoises, also occurs. In such vast and sparsely populated areas as one finds in the region, control is often difficult. There have been few reports of plant harvesting in the Conservancy, and the Management Committee is initiating a programme to engage the traditional goat and sheep herders who reside throughout the Conservancy to report any incidents and to assist in preventing plant and animal theft. Past environmental awareness campaigns in the Conservancy, specifically those

focused on youth, such as the annual Youth Summit in the Conservancy, have also contributed to awareness about the importance of conserving and retaining the environmental and cultural heritage objects, including plant an animal species. Additional awareness campaigns are planned for 2006 and 2007.

As described in Section 3.d. (Integrity and Authenticity), mining development does not pose a threat to the site. In addition to the zoning restrictions which are currently written into the municipality's Integrated Development Plan (IDP) and the Management Plan of the Conservancy and forthcoming legal restrictions in the declaration of the Heritage Area, there are significant environmental restrictions which prevent diamond mining from occurring in the Conservancy, as well as its Buffer Zones, as specified in more detail in Section 3.d (Integrity and Authenticity).

4.b (ii) Environmental Pressures

Seasonal drought is an occurrence in the Conservancy and one which is inherently part of the region's climate which has led to the diversity of plants which one finds in the Conservancy. These seasonal droughts are coped with by local herders by the movement of herds throughout the Conservancy area. The Conservancy also encompasses two rainfall zones, summer and winter, which allows drought-hit areas to recover and remain without livestock for several months off the year. The region despite bouts of dry weather receives fairly reliable rainfall, especially for the desert area.

Studies of the impacts of climate change on the Richtersveld flora are being carried out. Particularly, the *Aloe dichotoma* and *Aloe pillansii* are considered under threat from global warming. Several areas where *A. dichotoma* were formerly abundant are now devoid of young plants, leading scientists to believe that the rise in temperature and the resultant effect on changes in rainfall patterns are preventing young plants from surviving. This phenomenon is likely to be happening also to *A. pillansii*, a significantly rarer aloe of which almost the entire population occurs in the Conservancy. Further study is required on *A. pillansii* and *Pachypodium namaquanum* (halfmens), both rare and threatened species.

The Conservancy is bordered on the northeast by a large section of the Orange River, and perhaps the most undisturbed stretch of the river. The Orange River is the largest river in South Africa and Along its 2300 kilometre length, it passes through large farming regions where it is tapped for agriculture and human settlement and polluted by fertilizer and waste. The result has been continually lower river water levels, impacts on fish species and the inability of the river to flood and flush along its course. The Orange is undisturbed along its entire course along the Conservancy, which serves to protect one of the last remaining wilderness stretches of the river. However, cumulative impacts from upstream activities affect the overall health of the river.

Grazing of livestock has been carried out in the Richtersveld for two thousand years, leaving the land largely in tact. Numbers of stock are generally low, as a result of low carrying capacity of the land. However, certain areas require strict monitoring to ensure that grazing does not impact heavily on the flora. Some areas in the broader Richtersveld have substantial damage from erosion and overgrazing. The Conservancy through its Management Plan and the in-process GEF-funded Grazing Plan for the Conservancy and communal grazing areas will largely ensure that grazing is practiced sustainably.

4.b (iii) Natural Disasters and Risk Preparedness

The Richtersveld Community Conservancy falls under the Disaster Management Plan (DMP) of the Richtersveld Municipality. The Municipal Systems Act 32 of 2000 and the Disaster Management Act 57 of 2002 places an obligation upon each municipality to prepare a Disaster Management Plan as part of their Integrated Development Plans (IDPs). The Richtersveld Municipality published their DMP in 2004 with jurisdiction over the Conservancy area.

The DMP of the Richtersveld Municipality identifies the following as the greatest risks for the entire municipality which includes the Richtersveld Community Conservancy:

- Desertification
- Drought

- Domestic fires
- Flooding

Road accidents and erratic electricity and phone services to the remote parts of the municipality were also identified as areas where intervention is required. Surveys were carried out in Eksteenfontein and Kuboes with regards to the immediate needs relating to Disaster Mitigation and Risk Preparedness.

Natural disasters which face the Richtersveld Community Conservancy are not of a great enough scale to pose a significant threat to the property. Occasional brush fires are controllable due to the terrain, lack of dry undergrowth and succulent nature of the plant species. Flooding of dirt roads occurs at times rendering the more remote roads as inaccessible, but the Department of Environmental Affairs and Tourism (DEA&T) and the municipality have already begun repairing roads in the two towns as well as access roads to the Conservancy. It is noted that crime is not identified as a priority area, as the Richtersveld has the lowest crime rates in the entire country. The DMP also outlines a Disaster Response Plan which is being compiled to set forth contingency planning for the prioritized possible disasters.

In light of the envisioned emergency facilities needed for a World Heritage Site and in general being demanded by the residents of Eksteenfontein and Kuboes, telephone services and electricity supplies are being upgraded. A new tar road is being constructed linking Kuboes with Alexander Bay (with hospital facilities) and Oranjemund, Namibia (with airport facilities) and cell phone coverage is ever expanding in the region, currently available in Kuboes, but not yet in Eksteenfontein.

4.b. (iv) Visitor/Tourism Pressures

The Richtersveld Community Conservancy is located in the most sparsely populated region of South Africa. While visitor numbers are increasing, the Conservancy and surrounding areas remain remote and subsequently do not face the same visitor pressures as do other protected areas of the country, such as Cape Peninsula National Park and Kruger National Park. The main pressures

facing the Conservancy are from off-road driving, illegal harvesting of plants and camping by tourists in undemarcated sites. These are pressures which have faced the area since many years prior to the establishment of the formal protected area. The creation of the Richtersveld Community Conservancy set forth a number of measures to control visitors and potential degradation of the area.

The Conservancy has no current challenges in ensuring that the carrying capacity of tourism is not exceeded. Although it is unforeseeable that in such a remote location tourism numbers would reach levels which were unmanageable by the Conservancy Management, structures - such as zoning guidelines, campsite development and demarcation, signage, regulations, enforcement mechanisms, trained and certified guides and public awareness campaigns – have been put in place already to prepare the Conservancy for increased visitor numbers.

Zoning

The Conservancy has been zoned into three zones: tourism areas, town areas and wilderness areas. Tourism is encouraged in the towns and specific tourism zones which are shown on tourism maps available in the Tourism Information Centre. The tourism areas are located in the eastern and southwestern parts of the Conservancy where there are three guesthouses, as well as most of the campsites. The areas of Rooiberg, Eksteenfontein, Helskloof and Tierhoek receive almost all of the current tourism pressure.

Tourism is permitted in the wilderness areas as well at specific campsites and on specific roads, although usage is limited. The roughness of the land and roads in the wilderness areas largely prevents people from straying from the demarcated roads and campsites. It also presents a natural barrier against higher volume tourism, as only the most determined people will find their way into the mountains and valleys of the interior. Many of the roads are extremely rough and for use by 4x4 drivers only. These areas are monitored by the local stockfarmers who reside in the areas, as well as the Conservancy Management patrols. This environmental restriction ensures that the bulk of tourism remains in the Tourism Zones where it is closely monitored.

Although tourism is easily managed at present, regulations and plans for the future have been put in place in anticipation of increasing visitor numbers. Zoning and demarcating campsites and roads help route tourists along preferred routes in the area and guide them towards facilities. In addition, a project funded by the Department of Environmental Affairs and Tourism (DEA&T) is underway to build ecologically sound toilet facilities in the more popular campsites. This will be the only infrastructure planned for the campsites, to provide the necessary facilities to ensure clean campsites without detracting from the wilderness character of the sites through erection of unsightly and uncharacteristic infrastructure. Signage in each campsite also ensures that fires are kept in one location at the site and that the site does not spread and increase its footprint. A formal Zoning Plan and Tourism Plan are being developed in 2006.

Conservancy Regulations

The Richtersveld Community Conservancy has implemented the following regulations:

- Visitors must use only existing tracks designated for visitor use.
- Visitors must remove all rubbish and all items which were brought in the protected area.
- It is against Conservancy regulations to remove or damage any plants, animals and cultural heritage items.
- Visitors must use only the designated camping areas as demarcated at the Tourism Information Centre.
- Visitors are required to pay all entrance and camping fees.
- It is against Conservancy regulations to collect firewood in the Conservancy.

These regulations are posted on signage throughout the Conservancy, at the Tourism Information Centres (TIC) where visitors must register upon entry, on entrance fee receipts and on maps for the area available for sale at the TICs.

A special addition to the Management Plan that will particularly address the safeguarding of cultural assets is currently underway and is expected to be completed in early 2006.

Enforcement

The regulations are enforced by the Conservancy Manager who actively patrols the Conservancy area. In addition, the Conservancy is fortunate in that its interior is populated by local herdsmen who act as a patrol force themselves. Since all adult community members are legitimate owners of the Conservancy, including all semi-nomadic herders, an initiative is underway by the Management Committee to further engage these seasonal livestock grazers as a patrolling force knowledgeable of the Conservancy regulations and with the due authority to enforce the regulations, such those against plant collection and off-road driving. This method serves two purposes: to increase the involvement of all the stakeholders including those living in remote parts of the Conservancy and to utilize this human resource already stationed in the remote parts of the Conservancy as additional custodians of the property.

Signage

The property, formerly a vast and open area without publicly demarcated boundaries, has been properly signed. Signage has been erected to specify the following to visitors:

- Borders and entrances of the property.
- Locations of demarcated campsites.
- Directions from roads to demarcated campsites (to prevent off-road driving).
- No-entry signs for roads not permitted for use by visitors.
- Notice signs for preservation of petroglyphs.
- Directions to the Tourism Information Centre (TIC) for registration and payment of fees.

The above signage has been erected in only necessary locations in order to avoid disrupting the landscape with too much infrastructure. Additionally, signage was designed with neutral earthtones to complement the landscape and fit in with the area's status as a protected area.

Public Awareness

The initiative to incorporate the remote stockfarmers as custodians and patrolling officers is one aspect of public awareness underway in the Conservancy. There have been numerous other programmes for community clean-ups and community engagement in conservation and preservation activities. Members of the towns of Kuboes and Eksteenfontein, the two towns located on the edges of the Conservancy, have made great strides in awareness of biodiversity conservation and the value of the Richtersveld's culture. Such programmes in the past have included the very successful annual Richtersveld Youth Summits and youth field trips into the Conservancy for lessons on the area's valuable succulents and cultural heritage. It is the broader community, as well as designated officers, who can help prevent visitors from collecting succulents, artefacts or from driving off road or disposing of rubbish inappropriately.

Trained guides

There are several trained and certified guides in Eksteenfontein and Kuboes who can lead cultural and natural tours in the towns and the Conservancy. They work by the code of ethics outlined by the Field Guides Association of Southern Africa, as well as by the regulations of the Conservancy. These guides can ensure that visitors while travelling in the Conservancy are acting in accordance with the law and Conservancy regulations. They can also educate visitors about the natural and cultural heritage of the area and the need for its protection.

4.b. (v) Number of Inhabitants within the property and buffer zone.

The Richtersveld Community Conservancy falls within the Richtersveld Municipality which is very sparsely populated with 2001 census population numbers of 10,124.

Significantly, as a result of the downscaling of mines in the region the population has fallen from 11,764 in 1996.

Of the Municipality's population, the great majority live in the towns of Alexander Bay and Port Nolloth, both located on the coast. Most other residents live in the other small towns: Kuboes, Sandrift, Sendelingsdrift, Lekkersing and Eksteenfontein.

The Conservancy lands, however, are very sparsely populated with no permanent residence. The people who do live in the protected area are semi-nomadic goat and sheep herders, most of whom exhibit a transhumance lifestyle. Because of the nature of nomadism, it is difficult to know exactly the number of people residing in the Conservancy; however a 2005 estimate concluded that up to 300 herders reside inside the Conservancy, some only at certain times of the year and with an overall residence depending largely on the rains. Past estimates have been made by mapping activities and through the development of the Conservancy Infrastructure Plan, but studies are planned to determine the number and movements of seasonal livestock posts.

The Richtersveld National Park has few semi-nomadic sheep and goat herders, the Helskloof Provincial Nature Reserve has no inhabitants and the Communal Grazing Area consists of scattered groups of sheep and goat herders with little permanent settlement outside of the small towns.

5 Protection and Management

Traditional Management

Sustainable management of the core area and envisioned World Heritage Site has been on-going for the past two thousand years. Since the beginning of pastoral activities in the area - primarily nomadic and semi-nomadic sheep and goat herding – the Nama people have been caring for and managing the land. Traditional management of the grazing and water resources ensured that their livelihood, which was inextricably linked to the health of the land, could survive. As with other groups of pastoral people who are so directly dependant on sustaining natural resources, the Nama utilized the land wisely, rotating grazing pastures between seasons, which prevented overutilization of one particular area and which allowed summer grazing areas to rest during the winter months and vice versa. The piospheres, or sacrifice zones, which are often found in arid areas surrounding water points are noticeably absent from the Conservancy. It is no coincidence that after two thousand years of pastoral activity and habitation, the Conservancy area is being heralded by international conservation organisations as an ecologically intact and highly valuable biodiversity area. Traditional management of the natural resources by the Nama people has ensured this.

Community Conservancy Management

In recent years, however, the process of the developing a community-owned and -managed protected area sought to build on the success of traditional management and to organise the Richtersveld people in such a way as to preserve the indigenous knowledge of wise-use while arming the people with a management structure which could ensure from a legal and institutional perspective the future of the area as an ecologically sound and culturally vibrant wilderness area forever preserving one of the last and largest reserves of Succulent Karoo flora. The process of creating a community conservancy supported strongly by local people and local government and the development and adoption of the Conservancy Management Plan by the broader community and the landowner (CPA) has been successful. The Conservancy has been written into the Integrated Development

Plan (IDP) of the Richtersveld Municipality and been accepted by the CPA as a fully endorsed Protected Area.

The Richtersveld Community Conservancy is managed by a Management Committee whose role is to ensure that the management of the Conservancy is carried out in accordance to the Management Plan (please refer to section 5e). The Committee meets four times a year and includes representatives from the following organisations and associations:

Members of the Richtersveld Community Conservancy Management Committee

NAME	ORGANISATION
Gert Links	Conservancy Manager
Joan Cloete	Conservancy Administrative Officer
Polly Smith	Eksteenfontein community
Bettie Farmer	Eksteenfontein community
Kleinbooi Mpambani	Sanddrift community
Anna Slander	Sanddrift community
Andries Joseph	Kuboes community
Sylvia Hans	Kuboes community
Ivan Nero	Lekkersing community
Jacob Diergaardt	Lekkersing community
Izak Cloete	Richtersveld Small Miners Association
Abuys De Wet	Richtersveld Tourism Association
Klaas Van Zyl	Department, Tourism, Environment & Conservation
Joseph Domrogh	RGBK
Andy Davies	South African National Parks
Ivan Groenewald	District Municipality
Jacob Fredericks	Richtersveld Sida !hub Community Property Association (CPA)
Dirkie Uys	Richtersveld Municipality
Sintie Cloete	Lekkersing community
Willem De Wet	Richtersveld Traditional Nama Council
Joshua De Wet	Richtersveld CPA

The day-to-day management of the Conservancy is carried out by the Operational Management Committee, which includes the Conservancy Manager, the Administrative Officer and the Coordinator of the Richtersveld CBNRM Programme. The Manager's tasks include carrying out patrols of the area, directing any development activity, monitoring land use by pastoralists, liasing with stakeholders (CPA, government, South African National Parks (SANParks) authorities and

neighbouring properties). The Administrative Officer's tasks include financial reporting, bookkeeping, planning management committee meetings and keeping of Conservancy records. The Operational Management Committee hold weekly operational meetings to manage tasks associated with conservation and development projects active in the Conservancy (such as the infrastructure development project by the Department of Environmental Affairs and Tourism and the UNDP project for development of a research facility), tourism, livestock herding, and general protective issues related to the site, as well as the surrounding areas.

Legal Protection: Establishment of a Heritage Area **(Section 31 of the National Heritage Resource Act (1999)**

The CPA and Conservancy Management, with support of local, provincial and national government, are currently in the process of taking protective status a step further to declare the Conservancy as a Heritage Area which will give the Conservancy legal protective status. The application for becoming a Heritage Area under Section 31 of the National Heritage Resource Act (NHRA) is being lodged by the CPA as a landowner in conjunction with the Northern Cape Provincial Department of Sport, Arts & Culture and the Richtersveld Municipality.

The process of moving towards formal protection of the Richtersveld Community Conservancy has been a long and well considered one with a number of possible options in terms of applicable legislation being considered. Given the history of the Richtersveld and that the people who live there have after several hundred years of hardship and deprivation only very recently obtained formal title to the area, systems of protection that involve considerable intervention and management on the part of outside authority were not acceptable to the community which quite correctly believes that its traditions and traditional management systems are what have up to the present time protected the area and determined that its universal values have remained intact.

Given that from a cultural perspective what is proposed for nomination is a cultural landscape, the maintenance of which depends upon perpetuation of practices and traditions that are in large part intangible, though very dependant on the sound

management of the land for their perpetuation, it was felt by both heritage and environmental specialists involved with the community that the best option would be one that as far as possible perpetuated traditional protections and allowed the community as large a role in management of the site as the legal system would permit. It was, however, clear that in order to obtain both national and international protection of the site some form of firm and enforceable legal protection was required.

In order to ensure that a system of regulation was acceptable to the community, an undertaking was given to it by provincial authorities that prior to the formal implementation of any regulatory and management framework the system would be applied, tested and refined and not gazetted until such time as the community was satisfied that it met its needs, did not significantly erode its land rights and would serve adequately as a means of protecting the resources it values.

Conversely the aforementioned has proven as important to heritage and environmental professionals involved with the site in that it has shown that 'codified' traditional protections and a formalised system of management in which the community plays the essential role do work for the site and will ensure its future conservation.

In considering which of the many options for formal, legal recognition of the Richtersveld Community Conservancy was best suited to its situation, many possibilities have been considered and it has been resolved to protect the area under the terms of the NHRA and as a Heritage Area. Interaction with the community during a trial period for the management plan and management system as implemented over the past several years has determined that this system is the one most suitable for the site and needs of the community.

Section 31 of the NHRA provides for the creation of Heritage Areas and provides options for this to be accomplished by either the municipality or Provincial Heritage Resources Authority. In this case it is considered by both the Province, Municipality and community that the heritage area is best created by *Ngao Boshwa Kapa*

Bokoni and the process of implementation of the relevant provisions Section 31 of the act is currently underway and envisaged for gazetting by mid-2006.

Broadly speaking, the Heritage Areas provisions of the NHRA are a dynamic way of providing for protection of an area in that rather than applying a predetermined set of provisions prescribed by legislation, a regulation that meets the specific needs of the site in question must be written and gazetted. The regulation is equivalent to a management plan for the site in that it not only identifies what has to be protected, but how this should take place. Usually it also creates a management authority that allows all the necessary players in the given context to be involved in the decision making processes around the site. The provision is specifically designed for application to sites where there is a close inter-connection of cultural and natural values and resources of the site. (Clause 1 of Section 31 of the NHRA states that the purpose of a Heritage Area is "to protect any area of environmental or cultural interest".)

The envisaged regulation will provide for both the core area of the site and its buffer zone and consists of the conversion of the current management plan into regulations, with greater provision for cultural resources, and the recognition of the current Management Committee.

It is envisaged that the Management Committee formally created by the regulation establishing the Heritage Area will, once the site is inscribed on the World Heritage List, be recognised as a Management Authority in terms of South African World Heritage Act.

In summary, the establishment as a Heritage Area under NHRA serves three primary roles. First it places the entire area and its biological and cultural assets under full legal protection. Second, it ensures that the local community can continue to own and manage the site and ensure participation and consultation of local people such as the semi-nomadic pastoralists. Third, it ensures a 'checks and balances' system by which any development which affects the area must gain consent of both the local owners and the local government. Areas which can be declared Heritage Areas include those which are part of the "National Estate",

which includes places or objects with cultural significance or other special value because of its possession of uncommon, rare or endangered aspects of South Africa's natural or cultural heritage and/or its potential to yield information that will contribute to an understanding of South Africa's natural or cultural heritage and/or its importance in demonstrating the principal characteristics of a particular class of South Africa's natural or cultural places or objects. Section 3 of NHRA also describes the National Estate to include specific cultural and natural artifacts. For a list of these, please refer to Description of the NHRA in Section 5.b and 5.c.

Protection and Management of Buffer Zones

The Buffer Zone to the North (Richtersveld National Park) is protected by the Protected Areas Act under one of the highest provision of protective status available in South Africa. South African National Parks (SANParks) has an excellent track record in biodiversity conservation and management and currently manages World Heritage Site areas, such as Cape Peninsula National Park.

The Buffer Zone to the East (Helskloof Provincial Nature Reserve) is protected under the Protected Areas Act as a provincial nature reserve, enjoying a high level of protection which prohibits human habitation, livestock or development.

The Buffer Zone to the South (Communal Grazing Area) is similar to the Conservancy in being sparsely populated wilderness areas with scattered semi-nomadic sheep and goat herders. The area is zoned by the CPA and local government as a communal grazing area and development is restricted by the CPA. Additional protective status is being considered to protect certain sites in the area, and a five year GEF grant is beginning for sustainable land use in the area.

5.a. Ownership

Prior to democratisation of South Africa in 1994, the Richtersveld Community Conservancy was classified as a "coloured reserve" of which there were 27 in the Western Cape and Northern Cape Province. In the case of the Richtersveld, the largest of the "coloured reserves", the area is sparsely populated mostly by people of Nama origin, as well as the so-called Bosluis Baster people[8] and Xhosa people that previously worked on the state-owned Alexkor Ltd diamond mine.

The CPA

In 2001, the Richtersveld Community decided to establish a legal entity known as the Richtersveld Sida !hub Community Property Association (CPA) with the objective of representing the residents of the four Richtersveld villages (Kuboes, Lekkersing, Sandrift and Eksteenfontein) and outlying areas in their land claim, and managing the land restored to the Richtersveld community under the land claims process on behalf of its members, namely every person 18 years and older from the community. After acceptance of the CPA's constitution on the 14th of February 2001, a CPA Committee was established consisting of representatives elected at separate village elections as well as appointees of the Richtersveld Municipal Council. The CPA constitution and the Communal Property Association Act of 1996 govern the CPA Committee's decision-making powers. The constitution and the Act require community participation. Aims of the CPA include improvement of the infrastructure, development of agriculture, tourism, and economic opportunities to support job creation, and capacity building of committee members so that they can make the right decisions on behalf of the community.

In the post-1994 government an act was passed known as the Transformation of Certain Rural Areas Act (Act 94 of 1998) that makes provision for the ownership of such reserves to be determined through a particular process known as the Transformation Process. During the Transformation Process an extensive public awareness process was followed by a referendum that allows residents to vote on ownership options for the land. The main choices given to the

[8] While the authors deplore the usage of terms with racial connotations as a point of reference when referring to people this may sometimes be necessary either because people refer to themselves in that way, or because it may reflect a salient point that is made for a particular purpose. The term "Baster" is widely used in Namibia and generally so by the Rehoboth "Basters" who often refer to themselves as such with a great measure of pride in their unique origins and identity. In the Richtersveld the term "Baster" in the past was often used in a derogatory way during the Apartheid era when race formed the basis of discrimination by the government. This however appears to be changing as the desire to discover and analyze heritage increases in the melting pot that is the Richtersveld.
While the Nama belong to a distinct and ancient grouping of people they were simply clumped together with the so-called "coloureds" by an ignorant and insensitive South African government when the nation was divided along ethnic and colour lines as a means for further oppression and to bestow special privileges upon the "whites". The history of the "Bosluis Basters" is captured in a recent book titled *BB's van die Boesmanland* by Barry Eksteen (May 2005).

community were to have the communal lands placed under the ownership of the local municipality or under a Community Property Association. In the case of the Richtersveld communal land the community voted overwhelmingly to retain ownership of their land that would be formalised by way of a Community Property Association structure and in 2001 the Sida !Hub Community Property Association (referred to as the “CPA”) was created constituting every adult member of the four Richtersveld towns of Eksteenfontein, Kuboes, Lekkersing and Sandrift (adult members of the community are those over the age of 18 who have lived in any of the towns for five years or more). Thus the ownership of the Richtersveld Community Conservancy resides with the entire community, and formal title holding is expecting to be transferred to the CPA from the Minister of the Department of Land Affairs in the near future.

The CPA is currently represented by a committee of elected members of the community. Decisions of land use are taken by the CPA and close relations are maintained with local government (the Richtersveld Municipality), as well as with District and Provincial governments. People residing in and around the Conservancy area, primarily the Nama and Bosluis Baster pastoralists are members of the CPA and thus landowners themselves. The Conservancy is comprised of one contiguous protected area of approximately 160,000 hectares. Additionally, the Nababiep (helskloof) Provincial Nature Reserve borders on the Conservancy’s eastern boundary and is to be transferred from the Northern Cape Province’s Department of Tourism, Environment and Conservation (DTEC) to the CPA for inclusion in the Conservancy. This is a testament to the success of the Richtersveld Community Conservancy.

Buffer zones surrounding the Conservancy are comprised mainly of two types of ownership. The Richtersveld National Park on the northern boundary is also part of the Richtersveld communal area and hence is owned by the Richtersveld Sida !hub CPA, and is co-managed by the community and the South African National Parks (SANParks) through the *Richtersveld Gemeenskaplike Bestuurskomitee*, known as the RGBK and roughly translated as the Richtersveld Communal Management Committee. The Communal Grazing Area bordering the Conservancy to the West,

South and East is under CPA ownership. The area to the northeast consists of the Orange River and the political border with Namibia.

Summary of Land Ownership

Area	Ownership
Richtersveld Community Conservancy	Sida !hub Community Property Association (CPA)
Helskloof Provincial Nature Reserve	Northern Cape Province (soon to be transferred to CPA)
Buffer Zone – North (Richtersveld National Park)	Sida !hub Community Property Association (CPA)
Buffer Zones – East, South, West	Sida !Hub Community Property Association (CPA)

There exists good harmony between the Richtersveld Municipality, which is the administrative authority for the municipal area and the landowner which is the CPA. Their relationship is governed by a Memorandum of Understanding.

Memorandum of Understanding (MoU) between Richtersveld Municipality and the Richtersveld Sida !Hub Community Property Association (CPA)

The Richtersveld CPA and the Local Government signed an MoU, on 11 June 2004, to promote good cooperation between the parties in terms of planning and development of the Richtersveld area's resources. This was designed to ensure progress and growth in the region, which is the main principle of the MoU document. Both parties accepted the following guidelines:

- Investigation and implementation of cooperation opportunities
- Explanation of the different roles of each party in relation to the community
- Closure of agreements which would benefit the community
- Addressing of differences of opinion and solutions which would be in the best interest of the community
- Regular official meetings between the parties

- Exchange of information about land use and management of possible integrated developments and conservation frameworks
- Avoidance of unnecessary interference in each other's mandates
- Establishment of future guidelines for management

Both community and local government are fully supportive of the World Heritage Site nomination which is mentioned in various versions of the IDP as well as Annual Reports of the CPA.

5.b and 5.c Protective Designation and Means of Implementing Protective Measures

The Richtersveld is an area that, as is shown elsewhere in this dossier, has survived with its universal value intact only because of appreciation by the community that has been the custodian of its natural resources and practitioners of its cultural values for a period of time that extends beyond human memory. This fundamental aspect of traditional protection is underpinned and supported by the modern legal system of South Africa that, at a multitude of levels, provides for the protection of all that is valued and cared for by the people of the Richtersveld and is in a broader sense of universal value and deserving of recognition by all of humankind.

The Richtersveld Community Conservancy is subject to local, provincial and national legislation as well as the Conservancy's regulations, such as those on land use, tourism and protection of plants and animals.

Specific legislation affecting the protection of the Richtersveld Community Conservancy:

- Constitution of the Republic of South Africa (1996)
- Environmental Conservation Act (1989)
- National Environmental Management Act (1998)
- World Heritage Convention Act (1999)

- Natural Resource Heritage Act (1999)
- The National Environmental Management: Biodiversity Act (2004)
- The National Environmental Management: Protected Areas Amendment Act (2004)
- Local Government: Municipal Structures Act (1998)

Constitution of the Republic of South Africa (1996)

First and foremost as governing law in South Africa is the Constitution of the Republic of South Africa, specifically its Bill of Rights which includes specific environmental and cultural rights (Section 24 of Chapter 2). These rights have formed the cornerstone of the Conservancy in specific regards to sustainable development, ecological conservation and economic and social development.

The Environmental Right:

“Everyone has the right to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation; promote conservation; and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.”

The Constitution also specifies that:

“Persons belonging to a cultural, religious or linguistic community may not be denied the right, with other members of that community to enjoy their culture, practice their religion, and use their language; and to form, join and maintain cultural, religious and linguistic associations and other organs of civil society.”

The history of dispossession lies deep in the Richtersveld, extending back to the 1920s with the discovery of diamonds in the Alexander Bay area. The local people of the Richtersveld became people without any rights on their traditional land who

were dispossessed for the promotion of racial discrimination and for the state to tap the extensive diamond wealth on the land without returning revenues to the local people. The Richtersveld Community finally acted and in 2000 took steps to reclaim its birthright by applying for return of its land rights to the Commission on Restoration of Land Rights, the Land Claims Court and the Minister of Agriculture and Land Affairs. The community sees the land claim as part of a greater land transformation process in the Richtersveld area which extends beyond ownership and includes full control and benefits through livelihood development. The Communal Property Association aims to do so with the support of government, and by integrating with government-led processes at all levels.

While the land claim involved areas outside of the Conservancy (since the Richtersveld Community Conservancy has no mining activities), specifically those areas mined for diamonds, the community's victory in ensuring their right to land provides necessary context with regards to legislation and the ownership of the Conservancy and demonstrates the Sida !hub Community Property Association's (CPA) determination to keep its ancestral land. The South African Constitution specifies that:

"A person or community dispossessed of property after 19 June, 1913 as a result of past racially discriminatory laws or practices is entitled, to the extent provided by an Act of Parliament, either to restitution of that property or to equitable redress."

World Heritage Convention Act (1999)

The World Heritage Convention Act of 1999 incorporates into law the World Heritage Convention and provides for its enforcement and implementation. The Act also provides for the establishment of authorities to safeguard the integrity of the nation's World Heritage Sites. It acknowledges that the damage, deterioration or disappearance of the nation's heritage is a loss not only for the citizens of South Africa but for the entire world. The Act emphasizes sustainable development in accordance with the protection of the integrity of the nation's ecological and cultural assets.

The Act specifies that disturbances to ecosystems, landscapes and sites that constitute the cultural and natural heritage of the nation and the loss of biological diversity must be avoided, and that “highly dynamic, sensitive, vulnerable or stressed ecosystems, such as coastal shores, dolomitic land and ridges, estuaries, wetlands, and similar ecosystems require specific attention in management and planning procedures, especially where they are subjected to significant human usage and development pressure” (the Act, 1999, p.10). These provisions of the Act are supported in law by the National Environmental Management Act of 1998 and the Environmental Conservation Act of 1989.

The Act requires the Government to establish authorities to ensure the protection of and responsible development in World Heritage Sites; to ensure the preparation of integrated management plans for inscribed sites; and to ensure necessary financial controls and auditing for management of the sites. An authority will be determined for every World Heritage Site, and such authorities will work hand-in hand in an integrated manner with local, district, provincial and national government and controlling bodies.

National Environmental Management Act (1998)

The National Environmental Management Act (NEMA) is the most important piece of environmental legislation. It serves to provide for cooperative environmental governance by establishing:

- principles for decision making on matters affecting the environment;
- institutions that will promote cooperative governance; and
- procedures for coordinating environmental functions exercised by organs of state.

NEMA focuses on regulating the following main aspects: development, planning, natural and cultural resources and their utilization, the control of pollution, and the management of waste. NEMA is heavily founded in the principles of sustainable

development and encourages the integration of natural, social and economic aspects of the environment.

The principles set out in NEMA serve as the framework for environmental management and the formulation of implementation plans. They serve importantly as a control measure to which any organ of state must exercise any function when taking any decision concerning the protection of the environment. They also serve to inform recommendations for environmental planning and to guide the interpretation, administration and implementation of NEMA and other laws concerned with the protection or management of the environment.

There are several important principles outlined in NEMA, which include the following:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably.
- Development must be socially, environmentally and economically sustainable.
- Decision making must be open and transparent and there must be free access to information.
- The environment is held in trust by the state for the benefit of all South Africans.
- The environment must be protected as the people's common heritage.
- Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure.

Significant in regards to this nomination is the specification of the following principles:

"That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied" and

“that the disturbance of landscapes and sites that constitute the nation’s cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied.”

Environment Conservation Act 73 (1989)

Many of the provisions in the Environmental Conservation Act 73 (ECA) have been replaced by NEMA. However, some significant aspects are still determined by ECA. It specifies the process for environmental management tools, including environmental impact assessments (EIAs) and under what circumstances they are required. Both NEMA and ECA are important in regards to World Heritage Sites because they determine what development will be permitted in a World Heritage Site and how damage to the environment or the cultural fabric of the place will be avoided. These decisions are made largely at the provincial level in Northern Cape Environmental Affairs and Tourism Department.

A main purpose of ECA is to stipulate exactly what activities will trigger the need for an EIA and the Act lists these. The ECA Regulations have also been amended and updated to fully clarify issues that were previously vague or weak. It better defines the list and demands better decision making and accountability from governmental authorities and EIA practitioners. It also better outlines the details of the processes of environmental management and the needs for each phase of an EIA.

The new EIA regulations also specify specific geographical areas which would demand environmental authorization. Relevant to this nomination, these include:

- areas or sites identified by any legislation or in any government policy or plan that has been adopted for the purpose of protecting or conserving biological, water, landscape, geological, archaeological, palaeontological, architectural or cultural resources;
- the core areas of biosphere reserves; and

- areas designated for conservation or protection by the Republic in terms of any international agreement, treaty or convention to which the Republic is a party.

Regarding the Richtersveld Community Conservancy proposed World Heritage Site, relevant listed activities include off-road driving in sensitive areas, tourism and other development and road works. The Conservancy Management Committee encourages the implementation of the new regulations and has been trained in Environmental Management - specifically, EIA, Strategic Environmental Assessment (SEA) and Heritage Impact assessment (HIA) - with several members continuing to undergo advanced EIA training.

National Heritage Resources Act (1999)

The purpose of the National Heritage Resources Act (NHRA) is to promote good management and protection of the nation's heritage resources and to protect the 'national estate'. The NHRA emphasises the value of cultural diversity in South Africa and the importance of its preservation in modern South Africa as a measure of healing, national wellbeing and understanding of the nation's different cultures.

The primary stipulations of the Act include the following:

- Introduction of integrated and interactive systems to manage national heritage resources
- Promotion of good governance
- Empowerment of civil society to nurture and conserve that which it values
- Setting of standards for heritage management throughout the country
- Control of trade in cultural objects

The Act makes numerous specifications relevant to the proposed World Heritage Site, incorporating the broad nature of cultural heritage. It defines heritage sites as part of the national estate and includes:

- places to which oral traditions are attached or which are associated with living heritage (such as the many physical sites and natural features of the Richtersveld Community Conservancy);
- landscapes and natural features of cultural significance (such as the Richtersveld Cultural Landscape);
- structures and historical settlements (such as a the |haru oms);
- ancestral graves (such as the Nama and San graves of the Richtersveld);
- archaeological and palaeontological sites (such as middens and petroglyphs);
- places with strong association with a particular community or cultural group for social, cultural or spiritual reasons (such as the Richtersveld for the Nama and Bosluis Baster people).

The implementation of the Act is carried out jointly by the South African Heritage Resources Agency (SAHRA) and Provincial Heritage Resources Authorities, in this particular case *Ngao Boshwa Kapa Bokoni* (Heritage Northern Cape), the heritage authority of the Northern Cape Province. In line with contemporary international practice the NHRA provides for a wide range of measures for protecting different aspects of the national estate and, in accordance with the national Constitution which prescribes that responsibility for cultural matters is a shared competency of national and provincial government, allocates responsibility for different aspects of heritage conservation to SAHRA or the Provincial Heritage Resources Authorities.

In terms of the NHRA the following areas appropriate to the Richtersveld Community Conservancy enjoy automatic protection:

- Rock art
- Archaeological sites and material
- Burial grounds and graves
- Structures older than 60 years of age

The Act also provides for the inclusion of heritage resources into the provisions for Environmental Impact Assessment described under discussion of the

Environmental Conservation Act. However, in order to create a management system for heritage resources any one of a number of options for 'formal protection' has to be gazetted by the appropriate heritage authority. In the case of the Richtersveld Community Conservancy Heritage Area status is considered by the community and its advisers to be the most appropriate such measure (See discussion below).

The National Environmental Management: Biodiversity Act (2004)

This Act recently became part of South African law in order to support NEMA (1998) in regards to the conservation of biodiversity. It outlines its main purposes as to the management and conservation of the components of biodiversity, their sustainable use, and their equitable use. It stipulates that the methods of such conservation and management be supported by cooperative governance and to give effect to ratified international agreements relating to biodiversity. Finally it creates the South African National Biodiversity Institute to assist in achieving the Act's objectives.

The National Environmental Management: Protected Areas Act (2004)

This Act (Act No 57 of 2003) was amended by Act No 31 of 2004 to create revised Protected Areas regulations. The Act serves to provide:

- for the protection and conservation of ecologically viable areas representative of South Africa's biological diversity and its natural landscapes and seascapes;
- for the establishment of a national resister of all national, provincial and local protected areas;
- for the management of those areas in accordance with national norms and standards;
- for intergovernmental co-operation and public consultation in matters concerning protected areas;
- for the continued existence, governance and functions of South African National Parks;

The Act also specifies prohibited activities relating to World Heritage Sites, restricting the following activities:

- Introduction of any species or specimen, or part thereof to a special nature reserve, national park or world heritage site;
- Engagement in any restricted activity;
- Wilful disturbance of any species or specimen;
- Removal of any wood, firewood, sand, gravel, stone, sea shell, guano or other material;
- The cutting, damage, removal or destruction of or the possession of any plant or any part thereof, dry wood or firewood, grass or other plant (including any marine plant);
- The wilful cause of pollution, harm or death to any individual or population of any fauna or flora species.

Local Government: Municipal Structures Act (1998)

The Municipal Structures Act has been pivotal in bringing authority and control to local government, which in the Richtersveld has given the previously disadvantaged communities more participation in government. The Act sets forth the creation of local municipalities and the functions of the newly created municipalities.

5.d. Existing Plans Relating to Municipality and Region in which the Proposed Property is Located

Richtersveld Municipality Integrated Development Plans (2000,2002 and 2003)

The principles and inputs generated by the Management of the Richtersveld Community Conservancy are designed to be complementary to other development and conservation frameworks in the region. All must be integrated with local, regional, national and international frameworks and initiatives, such as the Integrated Development Planning process as described below.

Vision of the Richtersveld Municipality IDP

"We must continuously strive to develop all the resources of the Richtersveld, including its natural, cultural and human resources in a manner that is sustainable and benefits the people of the region so that our future will be secure"

According to Municipal Systems Act of 2000, all municipalities are required to produce an Integrated Development Plan (IDP). The following steps must be followed in the IDP process:

(1) Proper Public Participation to raise awareness in communities about the IDP process and how they get the opportunity to identify their needs.
(2) Investigation of the natural, human and economic potential of the area's resources to fulfil the above-mentioned IDP vision.
(3) Annual monitoring and evaluation of the performance measures and changing circumstances.

The Richtersveld Municipality has an excellent record of producing useful and comprehensive IDPs. The IDP is an important process in the region, because of the history of marginalisation of the people and the municipality's ambition to provide better lives for the Richtersveld people. The first IDP was produced under the auspices of the old Richtersveld Transitional Council (RTC) when the Vision was coined that was later adopted by the entire municipal area. The amalgamated municipality produced its first IDP in 2002. Every year the IDP has been reviewed and several awareness meetings of the IDP process have been held in Eksteenfontein, Kuboes, Sandrift, Lekkersing, Port Nolloth and Alexander Bay.

The 2002 IDP identified four priority areas for the Richtersveld:

- **Infrastructure and services**
- **Livelihood and job creation**
- **Conservation of natural and cultural resources**
- **Normalising access and opportunity**

Some specific sectors identified as requiring further suitable development were:

- Tourism
- Infrastructure
- Agriculture and Stockfarming

- Mining
- Small / Medium Microenterprises (SMMEs)

The Conservancy and the IDP

The Richtersveld Community Conservancy has, since its inception, been fully supported by the municipality and discussed in IDP 2002, IDP 2003 and IDP Review 2004. The IDP also emphasizes the importance of the Conservancy in the emerging Greater !Gariep Transfrontier Conservation Area.

World Heritage Site Feasibility Study

The Feasibility Study for a World Heritage Site in the Richtersveld was commissioned by the Department of Environmental Affairs and Tourism (DEA&T) with support from the Norwegian Agency for Development Cooperation (NORAD). The purpose of the feasibility study was to:

- examine the justification of parts of the Richtersveld to be a World Heritage Site,
- examine possible borders and multiple components,
- determine applicable criteria,
- identify the process for establishing a World Heritage Site,
- address the transfrontier character of the region, and
- to ensure complete community involvement in the process through extensive consultation, workshops, and field trips.

The Feasibility Study identified four possible scenarios for a World Heritage Site and was positively received by DEA&T and UNESCO, which subsequently made funding available for a complete nomination.

Some specific policy papers with regard for national heritage include:

- Tourism Policy Paper for the Northern Cape;

- White paper: Development and Promotion of Tourism in South Africa;
- White Paper on Art, Culture and Heritage (available online at : http://www.gov.za/whitepaper/1997/artscult.htm. [26)

5.e. Property Management Plan

Vision of the Richtersveld Community Conservancy

To protect and manage the unique biodiversity and natural landscape to the advantage of the local people and all of humankind.

The Management Plan was completed and approved by the Management Committee of the Richtersveld Community Conservancy in August, 2004. The final plan was a result of a two year process of extensive drafting and consultation with the Richtersveld Community and serves to outline the principles by which the Core Area will operate, as well as a document to stipulate the specifics of how the Core Area will be operated.

The Management Plan outlines the following principles and procedures:

- Processes which have led to the creation and adoption of the Management Plan and the creation of the Richtersveld Community Conservancy.
- Vision, Mission and General Guidelines and objectives for future management.
- Ownership of the Richtersveld.
- Importance of biological conservation and cultural preservation in the Conservancy.
- Identification and involvement of roleplayers and stakeholders.
- Status and scope of the area.
- Election of Management structures.
- Management Committee systems.
- Functions of Management.
- Principles for future agreements with interested parties and stakeholders.
- Admission control.
- Development processes and restrictions in the Conservancy.
- Public awareness and education.
- Capacity building of Management Committee.
- Infrastructure (Roads, Airstrips, Waste Control, Rehabilitation).
- Accordance with government and landowner (Community Property Association) policies.

- Tourism.
- Research and filmmaking.
- Communication structures between Management Committee, CPA, Local government, local people and stakeholders.

In addition, specific operational plans have been drawn up and approved for the Conservancy with other plans still underway, including procedures to protect cultural assets.

Completed plans:

Communication Plan: This plan outlines the communication networks and structures between Management Committee members, local, provincial and national government, media, researchers, local people, stakeholders, CPA, and the semi-nomadic pastoralists residing within the Core Area.

Financial Sustainability Plan: This plan outlines the financial reporting structures, operational costs, benefits to the broader community, and entrance and camping fee structures to ensure the future sustainability of the Core Area.

Infrastructure Plan: This plan outlines the existing infrastructure in the Core Area including windmills, cultural heritage sites (petroglyphs, graves and sites of cultural value), seasonal livestock camps, campsites, fences, roads, waterpoints, information centres, entrance gates, signage, guesthouses and buildings. The plan describes the guidelines for future development in the Core Area and protection of cultural heritage sites.

Implementation Plan: This plan sets forth the processes of how the infrastructure plan will be implemented and specifically how development will occur and with what funding. It is a dynamic document which is continually updated to guide the Management in future planning.

Marketing Plan: This plan outlines how the Conservancy will brand itself and identifies the key tourism markets. It also outlines the different marketing tools, such

as print, film, and web media and collaboration with beneficial, principled and relevant organisations and associations.

Plans in process

Monitoring and Evaluation Plan: This plan is underway to set forth the principles and structures for the Core Area to monitor its biological and cultural resources and their health. It will also set forth the process for necessary actions required in the case of damage to biological or cultural assets.

Tourism Plan: This plan will outline specifically how tourism is to be managed and controlled in the Core Area. The Marketing Plan focuses on how tourism will be generated and the Tourism Plan will ensure that tourism is carried out in accordance with the principles of conservation and sustainability as specified in the Management Plan.

Zoning Plan: This plan will zone the Core Area into three primary areas: Townlands (Kuboes and Eksteenfontein), Tourism Use Areas, Wilderness Areas, and specific Sensitive Sites (cultural heritage sites and sensitive botanical sites) which will require additional monitoring and strict protection.

Sustainable Management Plan: This plan will not be restricted to the Core Area but is underway through a Global Environmental Facility (GEF) project to zone land uses throughout the entire communal areas of the Richtersveld: the Core Area and the Buffer Zones. The plan will build upon the existing Grazing Plan of the CPA for the communal grazing areas, and will create a holistic plan based on sustainable use of the natural resources. This will ensure that the buffer zones to the Core Area are under proper management.

Environmental Response Plan: This plan is also planned under the GEF grant to supplement the Core Area's Monitoring and Evaluation Plan, but will include the broader area including the buffer zones of the Core Area.

Management of Cultural Assets Plan: This plan will specifically look at the sustainable use and preservation of cultural assets, both in terms of 'hard' fixed assets such as petroglyphs and cultural habits that can be eroded in the interface with tourism and other livelihoods.

5.f. Sources of Finance

The culture and biodiversity of the Richtersveld Community Conservancy has been recognized by several organizations who have contributed funds for conservation of the natural and cultural heritage. Additionally, several government programmes have made funds available for economic development and improvement of infrastructure.

Past funding which was instrumental in the development and growth of the Conservancy include the following:

GTZ/TRANSFORM which facilitated the establishment of the Richtersveld Community Conservancy Reference Group which was later turned into the Management Committee of the Conservancy which currently manages the property. The project also facilitated the development of the Sida !hub Community Property Association.

Norwegian Development Cooperation Agency (NORAD) and Department of Environmental Affairs and Tourism (DEA&T) which funded the Richtersveld Heritage Project which focused on the establishment of museum network and cultural guide training course, preparation of a feasibility study for the Richtersveld Proposed World Heritage Site and development of a cultural awareness group in Eksteenfontein.

United Nations Development Programme (UNDP) which funded the development of the Rooiberg Research Centre, the succulent nursery, and the mapping of wilderness trails in the Conservancy.

Conservation International (on-going until 2007) which continues to fund the Community Based Natural Resource Management Programme (CBNRM) which has facilitated the development and management of the Richtersveld Community Conservancy. The main tasks going forward of the CBNRM Programme include:

- Capacity building of the Management Committee of the Conservancy
- Capacity building of the Operational Committee of the Conservancy in Protected Area Management.
- Elaborations and extensions to the Management Plan
- Stakeholder Involvement in the Conservancy
- Incorporation of conservation activities into local school programmes
- Basic training in tourism and business management and support for Small and Medium Microenterprises (SMMEs)
- Improvement of infrastructure (erection of signage, maintenance of the Rooiberg Research Centre)
- Salaries for the Conservancy Manager and Richtersveld CBNRM Coordinator
- Exploring management options for the emerging Greater !Gariep Transfrontier Conservation Area (TFCA)
- Awareness Raising about the TFCA and strengthening of ties between the Conservancy and the Namibian //Gamaseb Communal Conservancy

Department of Environmental Affairs and Tourism (DEA&T; on-going until 2007) which has allocated the equivalent of $1 million through Social Responsibility Projects for the improvement of infrastructure and development of tourism facilities in the Conservancy. Specific tasks and activities include:

- Upgrading of 198 km of road network within the Conservancy
- Upgrading of 8 camp sites in the Conservancy as eco-friendly, wilderness camps for private camping
- Upgrading of Rooiberg entrance gate & guesthouse in the Conservancy
- Construction of an overnight hut at Basterfontein in the Conservancy

- Provision of accredited and non accredited training to 75 people in tourism and business training
- Marketing of the Conservancy

Global Environment Facility (GEF; on-going until 2010) which is developing an Environmental Management System and an Environmental Response Plan for the communal areas of the Richtersveld, comprising the Conservancy and its buffer zones of the Communal Grazing Areas. It is also planning to map the biological assets of the two areas.

The Richtersveld Company for Sustainable Development (RCSD), an NGO established by the Richtersveld Municipality, has received a grant of US$887,000 from the GEF to implement the Richtersveld Community Biodiversity Conservation Project (RCBCP). The goal of the project is to protect the globally significant biodiversity of the Succulent Karoo biome through a strong system of community-based biodiversity conservation in partnership with key stakeholders.

Specific activities and services will include:

- A systematic conservation planning assessment;
- An environmental planning and development system and manual;
- Legal support to the Richtersveld Community Conservancy;
- An ecological management plan and grazing management plans;
- A community-based biodiversity monitoring and rapid response system;
- Training and capacity building;
- Assistance towards expanding the Financial Sustainability Plan for the Conservancy;
- Financial, administrative and institutional arrangements for the Conservancy;
- Infrastructure plans including dirt roads upgrade, alien vegetation removal, signage, boardwalks, fencing, bushcamps and site rehabilitation;
- Tourism marketing and responsible tourism guidelines for operators;
- Museum installations and awareness raising brochures.

5.g. Sources of Expertise

The Richtersveld Community Conservancy has open access to government and non-government expertise, and several government departments are actively involved in the Richtersveld Community Conservancy's development in providing technical advice, direction and access to resources. The Richtersveld Local Municipality, in particular, has a member on the Conservancy Management Committee and provides the Richtersveld Community Conservancy with direct access to the Mayor. Other organs of government and organisations with available expertise for the Richtersveld Community Conservancy and whose expertise has been offered to and utilized by the Conservancy include:

- **Department of Environmental Affairs and Tourism (DEA&T).** At national level, DEA&T can assist the Richtersveld Community Conservancy with challenges which require the attention of the highest level of government. DEA&T has also recently allocated 6 million Rands (equivalent to $1 million USD) to the Conservancy for the development of tourism and infrastructure and for training and job creation in the Conservancy. DEA&T remains an active sponsor and advocate of the Conservancy as a model community-based protected area.

- **Director - Museums, Archives & Libraries, Northern Cape Provincial Department of Sport, Arts & Culture.** The Director, Museums, Archives and Libraries has consistently been involved with the preservation of Richtersveld culture and in research on the |*haru oms* architecture. The Director provides an important resource for heritage preservation and promotion.

- **South African Heritage Resource Association (SAHRA).** SAHRA serves a useful information base for the Conservancy.

- **South African National Parks (SANParks).** SANParks has assisted the Conservancy in Protected Area Management training through workshops in the region and through invitations to several South African national parks, both in and outside of the region, to provide expertise and training to the Conservancy Management.

- **Legal Resources Centre (LRC).** The LRC was pivotal in assisting the greater Richtersveld Community in regaining traditional land which was taken from them during Apartheid. It helped the community win an historic land claim in the Constitutional Court and is available for advice and assistance in land-based legal matters.

- **South African Biodiversity Institute (SANBI).** SANBI is an important resource for botanical information and data for the Conservancy. Access to information and botanical experts assist the Conservancy in managing its valuable biological estate.

- **International Knowledge Management (IKM).** IKM is a non-profit organisation very active in the Richtersveld which offers technical advice and on-the-ground operational assistance to the Conservancy. IKM gives the Conservancy access to a wide diversity of scientists and experts in sustainable livelihood creation, financial management, biodiversity conservation, capacity building and research.

- **McGregor Museum.** The McGregor Museum offers expertise in the preservation and presentation of cultural artefacts to the Conservancy and the Eksteenfontein Museum.

- **Member of Executive Committee for Department of Environmental and Tourism (Northern Cape Province)**. At Provincial level, the MEC has supported and offered resources to the Conservancy to develop its human capacity and to grow as a protected area.

- **Richtersveld Municipality**. As a staunch supporter of the Conservancy, local government has given technical advice, strategic direction and governmental support to the Conservancy. Integration between local government and the Conservancy Management has resulted in useful access to resources and expertise available to the Conservancy.

- **Richtersveld Community Based Natural Resource Management Programme (CBNRM)**. The CBNRM Programme is funded by Conservation International and based in Eksteenfontein, the management centre for the Conservancy. The CBNRM Coordinator has been involved and active from the very beginning of the development of the Conservancy and continues to provide daily operational, managerial and technical advice to the Conservancy Management. The CBNRM Programme also assists in harnessing synergies between the Conservancy and other Protected Areas and in developing the evolving Greater !Gariep Transfrontier Conservation Area (TFCA).

- **EcoAfrica Environmental Consultants** has played the leading role in terms of facilitation, integrated conservation and development planning, fund raising activities and providing expertise directly to the conservancy itself in terms of institutional capacity building and the establishment of the management plan over the last eight years. It has also mustered expertise from academics and experts from a range of institutions and organisations, including the University of Cape Town, CapeNature, BluePebble Independent Environmental Assessment and many others. The organisation strongly encourages the involvement of all potential partners that can add value to the conservancy and strives to devolve its own roles to that of the Operational and Management Committee as speedily as possible.

5.h. Visitor Facilities

The Richtersveld represents one of the most remote areas of South Africa and Namibia. The Richtersveld Community Conservancy is a young protected area, but has since its inception been the focus of several tourism and development

programmes. The purpose has been to promote community-based tourism focused on the interesting and appealing culture and the extraordinary floral character of the area – particularly the annual flower display. Tourism is now blossoming in the Richtersveld.

Several tourism-related initiatives have helped the Richtersveld, and the Conservancy in particular, find its place on South African's tourism map.

Tourism Information Centres (TICs), Museums and Facilities

There are two TICs in the Conservancy area, located in the towns of Kuboes and Eksteenfontein. These TICs are strategically located on the western and south boundaries of the Conservancy, to assist visitors arriving from either side of the protected area. At each TIC, there is a tourism information officer who sells maps of the Conservancy, books accommodation for visitors in the Conservancy's guesthouses and who in general assists visitors with orientation and plans for their stay in the Conservancy. There are also local crafts and textiles for sale at the TIC, which are produced by a local, women-run business. The tourism information officer also collects entrance and camping fees from visitors. In addition, information is distributed at the Rooiberg Guesthouse, located inside the Conservancy boundaries and which also serves to collect entrance and camping fees from people accessing the area from the East.

Additional information centres can be found throughout the region which distribute information about the Conservancy and publicise the Conservancy's accommodation, activities and general cultural and biological wonders. These include:

- Diggers Camp Multipurpose Resource Centre and Guesthouse (Alexander Bay);
- Multipurpose Resource Centre (Hondeklip Bay)
- Port Nolloth Museum (Port Nolloth)
- Arts and Crafts Centre (Steinkopf)
- Richtersveld Municipality offices (Port Nolloth)

Shops are available in all of the towns in the Richtersveld, including Kuboes and Eksteenfontein which border the Conservancy. Petrol, although not available in Kuboes, Lekkersing or Eksteenfontein, is available in all of the other towns. Food can be catered for by any of the guesthouses.

The Eksteenfontein Museum was recently established through the Richtersveld Heritage Project with support from a grant from the Norwegian Agency for Development Cooperation (NORAD). It exhibits artefacts from the pastoral history of the Richtersveld people and has also recorded the oral history from the elder people of the Conservancy. There is also the Port Nolloth Museum which has very good exhibits and information on the greater Richtersveld region, including the Conservancy.

Guesthouses

There are numerous hotels, guesthouses and campsites (many community-owned and operated) in the greater Richtersveld. In Kuboes and Eksteenfontein, located on the edge of the Conservancy, there are two guesthouses catering for tourists and researchers. Kom Rus ‘n Bietjie Guesthouse and The Plantation offer accommodation and food and assist with excursions throughout the Conservancy.

Within the Conservancy boundaries the Rooiberg Guesthouse is the only guesthouse thus far that has been permitted to be built by the Conservancy Management Committee. It also serves as an information centre. At Rooiberg, there is also the small Rooiberg Research Centre under development which will have information on the botanical aspects of the Conservancy with the small nursery and succulent garden exhibiting some of the Conservancy’s indigenous flora. The Research Centre will also host visiting scientists, researchers and students studying the area’s succulent plants. There are also plans to convert an old washhouse into a small observatory for stargazers. More information on the Conservancy guesthouses can be found at www.richtersveldguesthouses.co.za.

Additional accommodation is available in the towns of Lekkersing, Port Nolloth, Alexander Bay, Sandrift, Steinkopf, Springbok and in the adjacent Richtersveld National Park.

Campsites

The Conservancy is a vast wilderness with unlimited potential for camping. Historically, it was the domain of only the most intrepid travellers, but is gaining appeal and tourism is growing. The Conservancy Management Committee took the proactive decision in 2004 to manage tourism and campsites to prevent people from camping in sensitive areas and to focus people on existing camping areas. Currently, there are eight official campsites, which can be booked and paid for at the TICs. These sites are being upgraded by the 6 million rand Social Responsibility Project from Department of Environmental Affairs and Tourism but will remain low impact and with limited infrastructure. Sites are small and ecologically friendly in which only one group can camp at a time and from which all waste must be carried out. Because of the fragility of the area, there are no large campsites with extensive infrastructure in the Conservancy.

There are additional campsites outside neighbouring towns and in the Richtersveld National Park.

Field Guides

The Conservancy has several professionally trained guides who have certification with the Field Guides Association of South Africa (FGASA) and the Department of Environmental Affairs and Tourism (DEA&T). They are available for hire at the two Tourism Information Centres (TICs) in the Conservancy area, and escort travellers to places of interest in the Conservancy. There are two types of guides: cultural guides who focus on explaining the cultural aspects of the Conservancy and nature guides who lead hikes and inform guests on the magnificent botanical wealth of the Conservancy. There are two mapped trails in the Conservancy which are currently being demarcated and there are uncountable backcountry trails and loops which can be undertaken on day trips or longer treks.

The Conservancy also has a significant stretch of the Orange River, which is one of the most remote sections of the river along its entire course in South Africa. There are guided river rafting and kayaking trips available at several campsites along the Orange River outside the Conservancy.

Statistics

The Northern Cape Province is the largest, but least visited and most remote province in South Africa. It also receives the fewest tourists, which makes it an unspoiled treasure for the nature purest and for those wanting an authentic glimpse into traditional South African life and Nama culture.

Visitors have for many years travelled to the Conservancy for camping and exploring the Conservancy's remote backcountry. Historically, people travelled to the Conservancy free and were able to move around without restriction or control. In 2004 the Management Committee instated Conservancy regulations and in 2005 began accepting entrance and camping fees. Only recently has the Conservancy started trying to capture official statistics, but overall the sentiment is that tourism is increasing healthily, in light of recent publicity for the Conservancy in the press and of the greater Namaqualand's fantastic flower display.

The Conservancy remains very seasonal with the months of September and October being the most popular and those during which the flowers bloom. The summer months: January, February and March are extremely hot in the Richtersveld and during this time fewer people visit the area. Record keeping for visitors in the Conservancy has only recently begun in earnest. Previously, entrance was free, but the Management Committee made the decision to keep records in order to capture visitation trends. Most of the visitation is by people passing along the boundary of the Conservancy on the main gravel road and thus not required to pay entrance fees. As a result, the numbers do not accurately reflect the visitation to the Conservancy, which is approximately 3000 people per year.

Monthly visitation to the Richtersveld Community Conservancy

Month	Overnight Visitors	Vehicles (passing through)
October, 2004	22	19
November, 2004	48	12
December, 2004	32	23
January, 2005	16	9
February, 2005	0	15
March, 2005	13	28
April, 2005	34	47
May, 2005	32	45
June, 2005	38	96
July, 2005	62	95
August, 2005	69	117

5.i. Policies and programmes related to the presentation and promotion of the property

Above all, the South African Heritage Resource Agency (SAHRA) is tasked with ensuring protection and publicity of South Africa's heritage. However, there are several campaigns specific to the Northern Cape, the Richtersveld Community Conservancy and the Greater !Gariep Transfrontier Conservation Area (TFCA).

The Northern Cape is the driest and most remote province in South Africa. As a result tourism is not as large a sector as in other parts of the country. However, there are numerous tourism drawcards for the region and several 'flagship' locations, including the Richtersveld. The Province's mantras "*Follow the sun, not the crowds*", "*The land of contrasts where less is more*" and "*A land of sunny days and starry nights*" hone in on the tourism appeal of wide open spaces and big skies.

The province also has substantial information pamphlets, maps, tourism and accommodation information available throughout the province which highlight the natural attributes such as geological and botanical aspects, and cultural attributes, such as rock art and Nama and San culture.

Specific promotional initiatives and frameworks can be found on the following websites:

- **Richtersveld Community Conservancy:** www.richtersveld.net

The Conservancy's own website highlights the attractions and activities on offer in the Conservancy.

- **Richtersveld Guesthouses**: www.richtersveldguesthouses.co.za

The Richtersveld Guesthouses' website markets and provides information on the Rus 'n Bietjie Guesthouse (in Eksteenfontein) and the Rooiberg Guesthouse (the only accommodation facility located inside the Conservancy).

- **South-North Tourism Route (SNTR)**: www.south-north.co.za

This website and tourism framework outlines the destinations along the Western Coast of South Africa with a focus on the Richtersveld as a top destination. Facilitated by EcoAfrica with social responsibility funding from DEA&T the SNTR is owned and increasingly operated by local communities lying along the route between Cape Town and the border of Namibia who are striving to develop a destination based firmly on the principles of equitable, responsible and sustainable tourism under the ownership of local communities and to benefit the natural environment through awareness raising. The SNTR serves as a large overall tourism driver for the Richtersveld and emphasizes the Conservancy as one of its feature attractions along the "Richtersveld Route", a tourism route framework focusing on the Conservancy.

- **Distance Learning and Information Sharing Tool**: www.dlist.org

This is an interactive information sharing platform which has enabled the wide range of roleplayers involved with or living along the coastal areas of the Benguela Large Marine Ecosystem (BCLME) from government to NGOs to local stockfarmers to engage with each other on matters of conservation, development and livelihood creation. DLIST has been a prominent medium in the discussion over the World Heritage Site nomination and the emerging Greater !Gariep Transfrontier Conservation Area. The Management Committee members of the Richtersveld Community Conservancy provide an active voice on the platform sharing experiences and discussing issues with similar protected areas in South Africa and Namibia.

- **Northern Cape Tourism**: www.northcape.co.za

This is a general website highlighting the attractions of the Northern Cape Province, including the Richtersveld.

Additional promotion active in drawing visitors to the Conservancy is the collaboration between different frameworks and destinations along the West Coast of South Africa and Southern Namibia. Other tourism routes such as the Crayfish Trail, the Diamond Route and the Flower Route (all available on www.south-north.co.za) all maintain links with the Conservancy and drive business to each other. Useful links have also been established and maintained with private nature reserves and communal conservancies in Southern Namibia leveraging the transfrontier nature of the region. Marketing and collaborative booking strategies have been established between the Conservancy and tourism enterprises on both sides the border, such as //Gamaseb Communal Conservancy, Klein Aus Vista Nature Reserve, and Brukkaros Communal Conservancy all located in Southern Namibia.

Several specific projects and programmes have assisting publicizing the Conservancy and transfrontier region, including:

- **Richtersveld Community Conservancy Social Responsibility Project:** Implementation of poverty relief project to develop community-based tourism, improve infrastructure, create sustainable livelihoods and market the Richtersveld Community Conservancy (funded by Department of Environmental Affairs and Tourism).
- **Facilitation of the Richtersveld Community Conservancy and Transfrontier linkages with communities in Namibia:** Support to the Conservancy and where necessary, local involvement in the Greater !Gariep Transfrontier Conservation Area (TFCA) and building of transfrontier links with Namibian communities (funded by Conservation International).
- **Richtersveld Community Based Natural Resource Management Programme (CBNRM):** Engaged in various initiatives to publicize the Richtersveld Community Conservancy and the region through representation at World Parks Congress, the Summit on Sustainable

Development and the development of websites and other promotional material (funded by Conservation International).

- **Development of a Small Business Strategy for the Richtersveld:** Development of a Small Business Strategy and facilitation of tourism training development for key personnel in the South-North Tourism Route Association (SNTRA) and Richtersveld Tourism Association (RTA) in order to publicize the Richtersveld Community Conservancy and surrounding areas (funded by GTZ/Transform).

5.j Staffing Levels

The Richtersveld Community Conservancy is a community-owned and managed protected area. The creation and development of the Conservancy was carried out with the understanding from the beginning that capacity building of local people and managers was a constant priority. In an area which only a decade ago was still being actively and negatively impacted by Apartheid and the restrictions for economic and skills growth, the Conservancy has progressed successfully, but still requires training and improvement of the skills base of the community members involved in the operations and management of the Conservancy.

Significantly the Provincial Department of Arts, Sports and Culture and the Department of Tourism, Environment and Conservation (DTEC) have indicated to jointly funds a further full-time position for the Conservancy which will boost sustainability of the staff component.

There have been numerous projects before and since the Conservancy's inception which have focused on capacity building and training. The majority of these initiatives have focused on tourism, management, conservation and environmental management, financial management and accounting.

The Conservancy Manager and Conservancy Administrative Officer regularly attend short courses and on-site training to supplement their skills and continually to improve their ability to operate the Conservancy.

Some specific training and capacity building exercises which have taken place for Conservancy management and members of the community include (d):

Protected Area Management

The Conservancy Management has undertaken several trainings to build capacity in Protected Area Management. Several members have experience with South African National Parks (SANParks) in administration and management. Additionally, the administrative capacity of the Conservancy has been built through professional bookkeeping and accounting courses in Cape Town. In 2005, the Conservancy Manager and Administrative Officer undertook an exchange with SANParks to Cape Peninsula National Park and West Coast National Park to strengthen skills in Protected Area Management and conservation of sensitive floral ecosystems. The focus was to bring the skills that have been used in the Fynbos Biodiversity Hotspot and Cape Floral Region World Heritage Site to the Conservancy as part of the Succulent Karoo Biodiversity Hotspot. Additional training courses have been held by SANParks from the Richtersveld National Park for various members of the community in the Conservancy.

The Conservancy Management also undertakes regular visits to southern Namibia to develop cultural linkages between similar protected areas in the Greater !Gariep TFCA, such as //Gamaseb Communal Conservancy. These visits also enable the Conservancy Management to visit and learn from other commercial and communal conservancies and national parks.

The Conservancy staff also benefit regularly from on-hand expertise of and training from the Richtersveld CBNRM Programme, located in Eksteenfontein on the border of the Conservancy. The CBNRM Programme serves a vital role in the Richtersveld and builds capacity in conservation, development. Another useful non-governmental organisation, International Knowledge Management (IKM) also serves as a vast technical resource for capacity building of the Conservancy Management. Please refer to the Section 5.G (Sources of Expertise) for more information.

Environmental Assessment (EA)

An on-site short course introducing the principles of environmental assessment, including Environmental Impact Assessment (EIA), Strategic Environmental Assessment (SEA) and Social Impact Assessment (SIA) was completed in 2005 by the Conservancy Manager, Administrative Officer, members of the Management Committee, Local Government, the Environmental Committee of the Sida !hub Community Property Association and the Richtersveld Community-Based Natural Resource Management (CBNRM) Coordinator.

A second and more advanced EA course was undertaken by the same group in 2005 which focused on Heritage Impact Assessment (HIA) and further details of public participation and processes of EIAs.

To supplement these short courses the Conservancy Manager and Administrative Officer also completed professional courses in EIA obtaining certificates from Potchefstroom University. The Conservancy Management Committee has placed a great deal of importance on planning and due process in EA especially with regards to any new developments in the region.

Mapping and Global Information Systems (GIS)

The Conservancy has a mapping team located in Eksteenfontein, trained in Global Information Systems. Computer facilities are available in the Management offices to create and update maps off the Conservancy and to capture information and locations of specific sites in the field. The Conservancy Mapping Team has created maps for tourism and management purposes, demarcated trails, and logged information of roads, fences and sites of interest. The Mapping Team is also planning to undertake the assignment of mapping of the threatened *Aloe pillansii*, which is almost entirely restricted to the land inside the Conservancy.

Tourism

There are several field guides and cultural guides available to escort visitors around the Conservancy. Cultural Guides are available for town tours to gain insight into local culture and history, and also there are Registered Field Guides who can guide people deeper into the Conservancy to explore the wilderness and ecological wealth. These guides are trained in First Aid and certified guides with the Field Guides Association of South Africa (FGASA) and registered with the Department of Environmental Affairs and Tourism (DEA&T). Additional professional staff includes the Tourism Information Officer, located in Eksteenfontein and the Curator of the Eksteenfontein Museum who both are well versed in the local culture and heritage of the Conservancy and facilitate tourism activities for tours, camping and overnights at the Conservancy guesthouses.

Under a grant from Conservation International and a Medium-Sized Project from the GEF necessary training will continue over the next two years, increasingly focusing also on the capacity building of the Management Committee.

6. Monitoring

Monitoring methods which can be implemented to record changes, improvements or deterioration in the natural and cultural Richtersveld environment include the following:

- Assessment of localities of specific species to understand and monitor trends and populations. This can be done through regular mapping exercises. Specific species which can be targeted are *Aloe pillansii, A.dichotoma* and *Pachypodium namaquanum.* Exact numbers of specific species, numbers of young plants and locations within rainfall zones must be determined to identify population threats.

- Monitoring of grazing activities and trends and use of seasonal livestock posts through surveys in the summer and winter months to determine usage and increases or decreases in utilization of livestock posts in the Conservancy.

- Survey of impact of grazing on vegetation, with an emphasis on succulents. This can be carried out through the observation and study of different fenced plots with varying numbers of present livestock.

- Survey of overall vegetation cover through satellite imagery and aerial photographs.

- Comprehensive study on number and location of |*haru oms.* This can expand on the previous work undertaken cataloguing the Richtersveld's |*haru oms*. The study must incorporate condition and usage of |*haru oms* to determine the overall status of the traditional architecture and its role in Nama society.

- Fixed point photography of sensitive areas can be carried out at regular intervals to assess vegetation cover and trends.

Several projects have been funded to assist the Conservancy and the Grazing Areas in the buffer zone to monitor natural and cultural resources. As discussed in Section 5.f (Sources of Finance), Global Environment Facility has begun a five year project which will map and take inventory of the biological assets of the Core Area and the Buffer Zones and put in place a community-based biodiversity monitoring and rapid response system. Additional research is planned to assess the human use of plants for medicinal or traditional purposes. The hoodia plant which exists in the Conservancy has been widely publicised for its use by the San people of the Kalahari for suppression of appetite and there are numerous other species used by the Nama in the Conservancy. Intangible Heritage is also a field for further research to catalogue oral history, song and tradition. This was started under by the curator of the Eksteenfontein Museum, but will need to be expanded to comprehensively preserve this living history.

Additionally, Conservation International, through its Richtersveld Community Based Natural Resource Management Programme (CBNRM) has made funding available for the development of a Monitoring Plan for the Conservancy to supplement the Management Plan. The Monitoring Plan for the Conservancy is planned to be completed by mid-2006.

6.a. Key Indicators for Measuring State of Conservation

The indicators listed below can all be expressed numerically to show quantitatively trends and overall health of the cultural or natural heritage aspect. Locations of the records, as have been written into the Conservancy Research Plan, must be retained in the administrative offices of the Conservancy in Eksteenfontein. Botanical data will also be kept at the South African National Biodiversity Institute and cultural data will also be kept at the Northern Cape Department of Sports, Arts and Culture.

Indicator	Periodicity
Number of |*haru oms* and percentage of natural material used.	5 years, based on original survey in 2001
Number of traditional seasonal livestock posts.	5 years, in conjunction with survey of |*haru oms*
Number of people residing in the Conservancy	5 years in conjunction with other cultural surveys
Average size of goat and sheep herds.	5 years in conjunction with other cultural surveys
Number of *Aloe pillansii* in winter rainfall areas	Depending on initial survey findings
Number of young *A. pillansii* plants in winter rainfall areas	Depending on initial survey findings
Number of *A. pillansii* in summer rainfall areas.	Depending on initial survey findings
Number of young *A. pillansii* plants in summer rainfall areas	Depending on initial survey findings
Number of *Pachypodium namaquanum* winter rainfall areas	Depending on initial survey findings
Number of young *Pachypodium namaquanum* plants winter rainfall areas	Depending on initial survey findings
Number of *P. namaquanum* in summer rainfall areas.	Depending on initial survey findings
Number of young *Pachypodium namaquanum* plants summer rainfall areas	Depending on initial survey findings

6.b. Administrative Arrangement for Monitoring the Property

The property will be monitored along the lines of Integrated Environmental Management (IEM) procedures. Monitoring the property will involve to the extent possible the full consultation and involvement of local people.

Monitoring will be carried out by the Operational Team that reports to the Conservancy Management Committee, with support from the Richtersveld

Community Based Natural Resource Management (CBNRM) Programme. These two structures will form the base from which monitoring will be conducted and recorded. Monitoring activities will be carried out in accordance with the Monitoring Plan of the Conservancy which will be completed by mid-2006, after which it will be endorsed by the Management Committee and made as an annex to the Management Plan.

The Management Committee and the Richtersveld CBNRM Programme will receive technical support from several support and research organisations including International Knowledge Management and the South African National Biodiversity Institute (SANBI) with leading authorities on botanical research. Additionally, for the next five years the Global Environment Facility Project in the Richtersveld will be conducting biological asset mapping and inventory in the Core Area and Buffer Zones. All activities will pay special attention to capacity building of local human resources to ensure sustainable monitoring programmes into the future.

6.c. Previous Reporting Exercises

Specific reporting exercises relating to World Heritage in the Richtersveld Community Conservancy include the **Annual Reports of the Sida !hub Community Property Association (CPA) 2001, 2002, 2004.** Specific references to World Heritage nomination were made in all three annual reports.

The Manager of the Conservancy does monthly reporting and a special section will be created for the World Heritage Site in this reporting. In addition, quarterly reporting is carried out by the Management Committee of the Richtersveld Community Conservancy. They report on development initiatives, funding reports, conservation programmes, monitoring of the area, relations with stakeholders as well as day-to-day operational issues. This reporting is recorded in the **Minutes of the Richtersveld Community Conservancy Management Committee meetings.**

On a broader scale for all the communal land in the Richtersveld including the Conservancy, reporting exercises are recorded in the **Minutes of specific and relevant meetings of the CPA.**

Specific reporting exercises pertaining to conservation and development activities are reported on by the Richtersveld Community Based Natural Resource Management Programme (CBNRM), located in Eksteenfontein.

Additionally, specific reporting was carried out on the traditional architecture of the Richtersveld in the **2001 Survey of the Traditional Architecture of the Namas of the Richtersveld.**

This document was commissioned by the South African Heritage Resources Agency and carried out by the Northern Cape Department of Sport, Arts and Culture with participation from ICOMOS. The purpose of the survey was to fulfil the following aims:

- To produce a documentation report of the |*haru oms*; the traditional reed mat domed huts of the Nama).
- To produce drawings of huts in a qualitative sample survey.
- To document the location of |*haru oms* in the village of Kuboes.
- To document present day use of the |*haru oms*.
- To set the construction and use of the huts within a cultural and physical context.
- To document the construction methods.
- To construct, document and deconstruct a |*haru oms* for relocation and reconstruction at the McGregor Museum in the provincial capital, Kimberly.

Plans are underway for another survey to take place following on this 2001 report to gather information on trends and the preservation of Nama architecture and its present day use in the Richtersveld.

7. Documentation

7.a. Photographs, slides, image inventory and authorization table and other audiovisual materials. Inserted on following page.

7.b. Texts relating to protective designation, copies of property management plans or documented systems and extracts of other plans relevant to the property.

Documentation provided in the nomination file includes:

Legislation and Policy (Appendix E)

- National Environmental Management: Protected Areas Amendment Act (Act No. 31 of 2004).
- National Heritage Resources Act, 1999
- World Heritage Convention Act, 1999
- National Environmental Management Act, 1998
- Richtersveld Municipality Integrated Development Plan, 2000
- Richtersveld Municipality Integrated Development Plan, 2002 (Note: IDP 2003 is only available in the Afrikaans language and is not included, but is summarized as requested with other IDPs in Section 5.d.)

Management (Appendix D)

- Management Plan of the Richtersveld Community Conservancy, 2004
- Infrastructure Plan of the Richtersveld Community Conservancy, 2004
- Communications Plan of the Richtersveld Community Conservancy, 2004
- Marketing Plan of the Richtersveld Community Conservancy, 2005.

Relevant studies Appendix B and Appendix C)

- Hall, A., 2001. *The Traditional Architecture of the Namas of the Richtersveld.*
- EcoAfrica, 2004. *The Greater !Gariep Proposed World Heritage Site: A Feasibility Study.*

Species List (Appendix F)

A full list of related reports, plans and legislation is described in Sections 5.b., 5.d. and 5.e. and can be provided.

7.c. and 7.d. Form and Date of Most Recent Records or Inventory of Property and Addresses where Inventory, Records and Archives are Held

1) Biodiversity Records

Inventory of plant or animal species for the Richtersveld and Succulent Karoo Biome are kept at the South African National Biodiversity Institute.

South African National Biodiversity Institute
Private Bag X101
Pretoria 0001
South Africa

There remain parts of the area which have not been completely researched. Research continues through participation from universities and researchers, which will be facilitated by the completion of the Rooiberg Research Centre.

2) World Heritage Site files

Files pertaining to South Africa's World Heritage Sites are located at:

Department of Environmental Affairs and Tourism (DEA&T)
Fedsure Forum Building, North Tower
Corner of Van der Walt and Pretoria Streets
Pretoria, South Africa 0001

3) Cultural and historical artefacts, archives and literature

Cultural artefacts, literature and an inventory of pieces pertaining to the history of the Nama, Bosluis Baster and earlier people of the Richtersveld are located at:

The Eksteenfontein Museum
Main Road, Eksteenfontein 8384
South Africa

McGregor Museum
Atlas Street Kimberley
South Africa 8301

Port Nolloth Museum
2 Beach Road, Port Nolloth 8280
South Africa

Cape Archives
Private Bag X902572
Roeland Street Cape Town 8000
South Africa

Africana Library
PO Box 627 Kimberley 8300
South Africa

4) GIS information

Geographic information – coordinates of livestock posts, historic kraals, ancient Nama gravesites, petroglyphs, symbolic springs and waterpoints – are kept with:

The Richtersveld Mapping Unit
120 Main Street
Eksteenfontein 8384
South Africa

and with:

International Knowledge Management
7 Bishop Road, Observatory
Cape Town 7925
South Africa

5) Administrative files

Administrative and management files are located at the offices of the Richtersveld Community Conservancy:

Richtersveld Community Conservancy
120 Main Street
Eksteenfontein 8384
South Africa

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TITLE: _____

DATE: _____