Management Plan for Horses
in the Namib Naukluft Park
and the Tsau //Khaeb
(Sperrgebiet) National Park

2020-2029
Foreword

National parks are a vital tool for conserving Namibia’s essential biodiversity. By managing parks, their irreplaceable assets and unlimited potential will be conserved for future generations. In addition, every year Namibia’s National Parks draw large numbers of tourists to Namibia, generating employment and stimulating development nationwide. National Parks also provide a unique opportunity to benefit local communities through rural development while providing research, education and recreation opportunities.

Namib Naukluft and Tsau //Khaeb (Sperrgebiet) National Parks are home to the horses of the Namib. The horses are important for tourism and cultural heritage and therefore need to be managed. This is an opportunity that offers economic development for the country and improved community livelihoods for the neighbouring community of Aus through tourism development.

This management plan sets out the objectives and guidelines for the horses of the Namib in the Garub Managed Resource Use Zone. As such, it represents the policies and intentions of the Ministry of Environment and Tourism (MET) on how the horses should be managed.

All staff members and stakeholders involved must ensure that any actions and decisions relating to horse management are in accordance with this management plan.

Pohamba Shifeta, MP
MINISTER

REPUBLIC OF NAMIBIA
OFFICE OF THE MINISTER
PRIVATE BAG 13346, WINDHOEK

2019 -09- 12
Preface

The management plan for the Garub Horses of the Namib was derived from consultations involving the staff members of the MET, /Karas Regional Council, local communities, private sector, NGOs and other stakeholders. The plan has been designed and structured to be priority focused and action oriented, to facilitate implementation and the achievement of outputs and outcomes.

It gives a brief background to the horses and focuses on specific management interventions including zonation; management and tourism development; predator management; supplementary feeding and water provision; research and monitoring; as well as public awareness, stakeholder engagement and coordination.

This plan is designed around a uniform structure for easy reference and use and should be used in conjunction with park management plans for NNP and TKNP. The plan therefore articulates, at the strategic level, the ‘What’ must be done; with a brief description of the ‘Why’ these actions must be implemented to attain the specified objectives. It is imperative to operationalize these actions in a clear and detailed annual work plan.

The Ministry of Environment and Tourism would like to thank all its staff members, partners and stakeholders who participated in developing this management plan, and the Namibia National Parks Programme V (NAMPARKS V) which is co-funded by the Government of the Republic of Namibia and the German Government through KfW, for having supported the MET in the development of this plan.
## Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foreword</td>
<td>1</td>
</tr>
<tr>
<td>Preface</td>
<td>2</td>
</tr>
<tr>
<td>Table of contents</td>
<td>3</td>
</tr>
<tr>
<td>Abbreviations</td>
<td>4</td>
</tr>
<tr>
<td>Glossary</td>
<td>5</td>
</tr>
<tr>
<td>Executive summary</td>
<td>6</td>
</tr>
<tr>
<td>1. Introduction</td>
<td>7</td>
</tr>
<tr>
<td>2. Background</td>
<td>9</td>
</tr>
<tr>
<td>2.1. Location</td>
<td>9</td>
</tr>
<tr>
<td>2.2. History</td>
<td>13</td>
</tr>
<tr>
<td>2.3. Population</td>
<td>14</td>
</tr>
<tr>
<td>2.4. Conservation status and economic significance</td>
<td>14</td>
</tr>
<tr>
<td>3. Limiting Factors and Threats</td>
<td>15</td>
</tr>
<tr>
<td>4. Assumptions</td>
<td>17</td>
</tr>
<tr>
<td>5. Strategic Direction</td>
<td>17</td>
</tr>
<tr>
<td>5.1. Vision</td>
<td>17</td>
</tr>
<tr>
<td>5.2. Goal</td>
<td>17</td>
</tr>
<tr>
<td>5.3. Objectives</td>
<td>17</td>
</tr>
<tr>
<td>5.4. Principles</td>
<td>18</td>
</tr>
<tr>
<td>6. Management Strategies</td>
<td>18</td>
</tr>
<tr>
<td>6.1. Zonation</td>
<td>18</td>
</tr>
<tr>
<td>6.2. Management and tourism development</td>
<td>19</td>
</tr>
<tr>
<td>6.3. Supplementary feeding and water provision</td>
<td>20</td>
</tr>
<tr>
<td>6.4. Predator management</td>
<td>20</td>
</tr>
<tr>
<td>6.5. Research and monitoring</td>
<td>22</td>
</tr>
<tr>
<td>6.6. Public awareness, stakeholder engagement and coordination</td>
<td>22</td>
</tr>
<tr>
<td>7. Implementation Framework</td>
<td>24</td>
</tr>
<tr>
<td>7.1. Institutional arrangements</td>
<td>24</td>
</tr>
<tr>
<td>7.2. Resource mobilization and utilization</td>
<td>24</td>
</tr>
<tr>
<td>7.3. Reporting</td>
<td>24</td>
</tr>
<tr>
<td>7.4. Action Plan</td>
<td>25</td>
</tr>
<tr>
<td>8. Bibliography</td>
<td>25</td>
</tr>
<tr>
<td>Annex 1: Implementation Plan</td>
<td>27</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>--------------------------------------</td>
</tr>
<tr>
<td>HWC</td>
<td>Human Wildlife Conflict</td>
</tr>
<tr>
<td>MET</td>
<td>Ministry of Environment and Tourism</td>
</tr>
<tr>
<td>NAMPARKS</td>
<td>Namibia National Parks Programme</td>
</tr>
<tr>
<td>NNP</td>
<td>Namib Naukuft Park</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>TBD</td>
<td>To be determined</td>
</tr>
<tr>
<td>TKNP</td>
<td>Tsau //Khaeb (Sperrgebiet) National Park</td>
</tr>
<tr>
<td>WN</td>
<td>When necessary</td>
</tr>
<tr>
<td>Y</td>
<td>Year</td>
</tr>
</tbody>
</table>
Glossary

For the purposes of this management strategy, the words or phrases set out below have the following meanings:

“Aus community” means the beneficiary traditional community of Aus settlement neighbouring the Garub Managed Resource Use Zone as defined in the concession agreement referred to in this plan.

“Capacity building” means transfer of knowledge, information, skills and understanding.

“Conservation” means the management of human use of organisms or ecosystems to ensure such use is sustainable.

“External resources” means financial and/or human resources as well as material, equipment and supplementary feed obtained from outside the MET.

“Minister” means the Minister responsible for environment.

“Ministry” means the Ministry administering the matters relating to environment.

“Protected Area” means formal protected area proclaimed in the Government Gazette according to legislation.

“Staff member” means person appointed in terms of the Public Service Act, 1995 (Act 13 of 1995).

“Stakeholder” means any individual, group of individuals, organization or government department or agency that is affected or involved in the management of horses with the permission or authorization of the Ministry.

“Wild animal” means any animal of a species belonging to a non-domesticated species, whether or not that animal has been bred, tamed or is kept in captivity.

“Wildlife” means any animal or plant occurring ordinarily in a natural state, including its parts and derivatives.
Executive Summary

Horses of the Namib have been in existence for over a century. Although the horses are in National Parks, they are not “wild animals” and not fully supported by the Nature Conservation Ordinance, 1975 (Ord. 4 of 1975) that provides for principles of conservation, protection of wild animals, establishment and management of National Parks, utilization of wild animals, and provision of wildlife management planning, monitoring and research.

The horses are however recognized for their value for both tourism and as part of Namibia’s cultural heritage. This plan therefore provides for appropriate interventions for the management of these horses.

Objectives of the Management Plan are:

1. To maintain the integrity of the horse population in the Garub area of the NNP and TKNP.
2. To reduce conflict between horses and spotted hyenas (and people), and create conditions under which horses and spotted hyenas benefit communities.
3. To manage the Garub area in the NNP and TKNP as a Managed Resource Use Zone for the protection and conservation of the horse and hyena populations through collaborative management with the Aus Community.
4. To enable the realization of full economic potential of the horses to the Aus community and the country in general, through non consumptive utilization.

The Management Plan has a goal of maintaining a viable and healthy horse population that contributes to improved community livelihoods and economic development for the country. It is based on a number of fundamental principles, and these are:

1. Horses of the Namib are a property of the State, through the Ministry of Environment and Tourism.
2. Horse population management is promoted as a tourism viable land use type in a Managed Resource Use Zone of the NNP and TKNP.
3. The State is willing and will continue to commit resources to the protection and management of the horses.
4. Cooperation between MET and other stakeholders to achieve the protection and management of the horses will be pursued at all times.
5. Predators make significant ecological and economic contribution to wildlife based land uses and shall be conserved in the Garub area or Managed Resource Use Zone of the NNP and TKNP.

In order to sustainably manage the horse population of the Namib for improved community development and cultural heritage, the management plan sets out six management strategies which include zonation; management and tourism development; supplementary feeding and water provision; predator management; research and monitoring; public awareness, stakeholder engagement and coordination.
1. Introduction

The Wild Horses as they are commonly known and hereafter referred to as the “Horses of the Namib” in the Namib Naukluft Park (NNP) and Tsau //Khaeb (Sperrgebiet) National Park (TKNP) dates back to the First World War. These horses that inhabit the Garub area of the NNP and TKNP were either abandoned or escaped around the time of the First World War.

Although these horses are in National Parks, they are not recognized as “wild animals” and therefore not fully supported by the Nature Conservation Ordinance, 1975 (Ord. 4 of 1975) that provides for principles of conservation, protection of wild animals, establishment and management of National Parks, utilization of wild animals, and provision of wildlife management planning, monitoring and research. They are therefore referred to in this plan as “Horses of the Namib” as they lack conservation status.

In most recent years, the population has suffered from the effects of drought and predation from spotted hyenas that target the foals and weak animals. This has triggered a debate on the management and survival of the horses. In addition to the Park Management Plans of the two parks, this management plan is therefore developed to guide the management of the Horses of the Namib.
2. Background

2.1 Location

The horses are located at Garub area that overlaps the southeastern corner of the NNP and the northeastern corner of the TKNP, see figure 1.

Figure 1: Map to show location of Garub area in the NNP and TKNP
The NNP extends from the Hardap to Erongo regional boundary in the north (and bordering onto the Dorob National Park) to the northern border of the TKNP in the south, formed by the main road to Luderitz but 20 km short of Luderitz extending due north for about 80 km and then due west to reach the coast at Gibraltar. To the west it borders on the Atlantic Ocean and to the east on freehold farmlands (Figure 2).

The NNP occupies some of the most arid lands in Africa, south of the Sahara. The whole park falls below the 100 mm median annual rainfall isohyet and much of it below the 50 mm isohyet. In addition to the extremely low annual rainfall it is also hugely variable with an annual coefficient of variation ranging typically from 80% to over 100%. With its high evaporation rates and low rainfall, NNP experiences an average water deficit of about 2 m per year. Rain falls mainly from January to March.
The climate of the Namib Desert is influenced mainly by the cold Benguela Current and the South Atlantic Anticyclone. Temperatures are generally moderate (average minimum and maximum temperatures during the coldest and hottest months respectively reflecting a range of about 7-32°C), fog is frequent (about 125 days per year on the coast dropping to about 40 days per year 80 km inland) and wind is a dominant feature. These winds are mainly from the south and drive the Benguela Current northwards, carry sand from the shore onto the adjacent land, and cause upwellings along the coast which bring nutrient-rich waters to the surface.

It is important to understand why the Namib is a desert. First, the cold waters of the Benguela Current cool the air so much that it cannot rise up and develop into large rain-bearing clouds. The sea air remains trapped in a layer from the sea to about 600 m above sea level. Moisture from the sea is seen only as low clouds and fog. Second, moist tropical air from the east and north has usually shed its moisture before reaching the Namib coastal areas. And even when rain-bearing clouds do approach, they are usually blocked by breezes from the sea which blow inland for some distance, often to the escarpment. And finally, any moist tropical air blowing towards the desert descends over the escarpment, warming and drying out as it sinks down. These factors all combine to make rainfall an unusual event in the Namib.

The TKNP is located in the south-western corner of Namibia, between about 26° and 28.5°S and 13° and 17°E. It is about 320 km at its longest (running nnw-sse) and up to about 100 km wide (e-w). It covers an area of about 2.6 million ha. The park is bounded by the low water mark on the Atlantic Ocean in the west, the Orange River in the south, the NNP in the north and mainly freehold farmlands to the east. Two town lands also occur on the eastern boundary, those of Aus and Rosh Pinah, which currently fall under the jurisdiction of Local Authorities. Two other urban areas are located within the TKNP, namely Lüderitz, which has its own Municipality, and Oranjemund. These towns have a great role to play in the TKP in supporting economic development of the Park such as tourism by providing goods and services.

The greater area of the park falls within the Succulent Karoo Biome, while small areas in the north east and north west fall within the Southern Namib Desert (Figure 3). In effect, these areas are transition belts, and contain elements of both biomes. To the west the park extends down to the low tide line on the Atlantic Ocean. The coast comprises mainly sandy shores in the south and rocky headlands and inlets in the north.
Figure 3: Map of the Tsau //Khaeb (Sperrgebiet) National Park and surrounding areas showing the location of the Garub Managed Resource Use Zone.
The median annual rainfall varies between about 15 and 70 mm, is highly unpredictable (coefficient of variation of 70-90%), and rainfall events are equally unlikely in all months of the year. The fact that a significant component of the small amount of rain comes into the southwest Namibia as cold fronts from the Cape in winter results in a vegetation that is dominated by succulents.

The main landscapes of the TKNP comprise sandy and rocky coastal plains with bays, sandy and gravel inland plains, sand dunes, mountain ranges and inselbergs, and the Orange River valley, comprising a highly modified river system. The river mouth is a registered Ramsar wetland of international importance.

2.2 History

Horses of the Namib have been in existence for over a century. They originated from the Kubub stud farm that was established south-east of Aus in 1912 by the mayor of Lüderitz, Emil Kreplin. Kreplin bred horses for the racetrack and working horses for the diamond mines.

Research has shown that this group of horses formed the core of the horse population. When World War One reached Lüderitz, Kreplin was interned and later repatriated to Germany. In the turmoil of the war, unattended and with no fences to constrain them, the abandoned horses made their way to Garub, 30 kilometres away. A borehole at Garub, established for the steam trains, provided water for the horses. Garub was in the prohibited diamond area, the Sperrgebiet, where the horses found refuge over the years. As motorization replaced the horse as transport, there was little interest in the horses. They became a wild population in their own right and were left alone for over fifty years.

It was only in 1986, shortly before independence, that a section of the Sperrgebiet Diamond Area, which included the Garub waterhole, was incorporated into the Namib Naukluft Park. The southern area inhabited by the horses in Diamond Area 1, remained part of the Sperrgebiet until 2008 when it became part of the protected Sperrgebiet National Park later renamed the Tsau //Khaeb (Sperrgebiet) National Park.

At that time the Directorate of Nature Conservation began to review the horses and their status in the national park. In 1987, at the behest of Dr Frans van der Merwe, the Director of Agriculture in South Africa, ten horses were captured for scientific research purposes. This stimulated awareness of the horses. In the late 1980s the horses began to feature in the media. Writer and journalist, August Sycholt wrote the initial articles and produced the first documentary.

In the late 1980s a game-proof fence was erected on the eastern boundary of Sperrgebiet Diamond Area 1 and the NNP from the Swakop to the Orange River to restrict poaching and the movement of livestock. It reached Aus in 1989 and made it impossible for game, including the horses, to migrate eastwards in search of grazing.

Public awareness continued to grow during the drought of 1992 when the Ministry of Environment and Tourism (MET), prompted by the local community, captured and sold 104 horses to interested private parties, and provided the remaining horses with supplementary feed funded by the public. In November 1993, MET initiated and facilitated the construction of a viewpoint at the Garub waterhole for visitors. This was the first time that the public was able to view the horses as a tourist attraction and not just in passing from the road.
In 1998 when another drought reached the Namib Desert, articles published in the United Kingdom and Germany prompted concerned people around the world to contribute funds for supplementary feed for the horses until the rains returned. In 2000, the wild horses entered the international arena with the film ‘Running Free’, a popular movie which put Namibia and its beautiful landscape and animals on the world map. Public interest in the wild horses grew.

From 2000 to 2011, improved rainfall ensured a decade of peace, in which the wild horses continued to become an important tourism attraction in southern Namibia and were increasingly used to market the wild and rugged beauty of Namibia.

In 2005 a stakeholder workshop was held to discuss and propose management strategies for the horses. At that stage hyenas did not pose a threat to the wild horse population. The first spotted hyena reported at Garub was in 1998 feeding on a drought mortality horse carcass. From around 2003 the hyenas began to visit the Garub area more frequently but only at the end of 2012, hyena predation on the wild horses increased dramatically.

In 2013, hyena predation peaked as the hyenas specialized on the horses. Starting with the foals of which there were more than 50, the hyenas’ skills improved over the year to be able to hunt adult horses by the end of 2013. Not one foal has survived ever since.

From 2015 until 2018, the Namib Desert, like many parts of Namibia, experienced extreme drought conditions. In 2018, the drought finally broke and the rains arrived. The horses filled out and gained condition and the hyenas ventured onto adjacent farmland and started preying on livestock. During 2017 and 2018 nine of the hyenas were killed on private land adjacent to Garub. Some of the mares conceived, but the hyenas soon returned to Garub and the predation continued. Most of the foals born were killed.

### 2.3 Population

In the 1980s, the population of the horses were estimated to be just above one hundred and sixty (160?) animals. With the impact of drought and predation, the population now stands at seventy-seven animals (at the end of May 2019) with the following is the current population status:

<table>
<thead>
<tr>
<th></th>
<th>Mare</th>
<th>Foals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stallions</td>
<td>40</td>
<td>2</td>
</tr>
<tr>
<td>Mare</td>
<td>31</td>
<td></td>
</tr>
</tbody>
</table>

### 2.4 Conservation status and economic significance

Although the horses are in National Parks, they are not recognized as “wild animals” and therefore are not fully supported by the Nature Conservation Ordinance, 1975 (Ord. 4 of 1975) that provides for principles of conservation, protection of wild animals, establishment and management of National Parks, utilization of wild animals, and provision of wildlife management planning, monitoring and research.

The distinction is based on the principle that wild animals are able to survive and prosper in their natural habitat over the long term, by enduring variable climatic conditions (e.g. droughts) and predation pressures, without external human support. However, in the case of the horses, they need to be watered daily, supplementary fed for prolonged periods in times of drought and are vulnerable to predators.
The horses are therefore recognized in this plan as “Horses of the Namib” (and not necessarily feral horses) because of their value for both tourism and as part of Namibia’s cultural heritage. They have been a subject of numerous documentary films and are used to promote Namibia as a tourism destination. Horses of the Namib are now associated with the NNP, the TKP and the Aus-Luderitz communities.

The horses as a tourism product have become increasingly important to the livelihood of the Aus community. Due to harsh climatic conditions and unpredictable rainfall patterns and discontinuation of the railway to Luderitz, farming activities, few retail shops and the railway that provided job opportunities resulted in job losses. This had resulted in the Aus community diverting to tourism related activities due to historical events of Aus and, its surrounding (war zone, burial sites of the German Schutztruppe), spectacular sceneries, wildlife and horses, and a few others. Another local opportunity in the proclamation of the TKNP which will be marketed as a preferred destination, hence the horses of the Namib are also a tourism product in the park.

Aus is strategically situated and has a competitive advantage with improved road network/infrastructure between Aus and Keetmanshoop; Aus, Rosh Pinah and Orangemund and Aus to Luderitz and the port of Luderitz, harders and the Crayfish festival in the area. An increase of tourist arrivals is expected in the area with the envisaged opening of the TKNP for tourism with horses as one of the tourism attractions.

3. Limiting Factors and Threats

Research and consultations conducted identified major limiting factors and threats to the horse population, and specific management outcome that must be achieved in the timespan of this management plan:

<table>
<thead>
<tr>
<th>Limiting factors and threats</th>
<th>Management intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impacts of drought on the horse population</td>
<td>• Provide artificial water points for water to the horses</td>
</tr>
<tr>
<td></td>
<td>• When necessary, provide supplementary feeding to the horses</td>
</tr>
<tr>
<td>Predation on foals and weak animals</td>
<td>• Provide for proper predator management interventions</td>
</tr>
<tr>
<td></td>
<td>• Regularly patrol the area to scare off the hyenas and protect the horses</td>
</tr>
<tr>
<td></td>
<td>• Provide more water for game</td>
</tr>
<tr>
<td></td>
<td>• Manage/maintain a healthy indigenous wildlife population</td>
</tr>
<tr>
<td></td>
<td>• Consider building/constructing a sanctuary within the Managed Resource Use Zone during times of drought and extreme predation</td>
</tr>
<tr>
<td>Road kills</td>
<td>• Provide signage for horse movement and presence in the area</td>
</tr>
<tr>
<td></td>
<td>• Park visibility should be provided</td>
</tr>
<tr>
<td></td>
<td>• MET to obtain reduced speed limit from Roads Authority on the main road of the Garub area to 80 km/hour</td>
</tr>
<tr>
<td>Insufficient operational and development budget</td>
<td>Provide sustainable financing for operational and developmental activities for management of the horses</td>
</tr>
<tr>
<td>Management, supervision and decision making of the Garub area</td>
<td>The Aus office shall be the designated MET office to manage the Garub area for both the NNP and TKNP under the supervision of the Luderitz office with the Deputy Director: Southern Regions as head of division</td>
</tr>
<tr>
<td>Effects of small population</td>
<td>There is a need to monitor and manage the population’s shrinking genetic pool that is likely to affect the survival of the horses</td>
</tr>
</tbody>
</table>
4. Assumptions

There is little risk that the management interventions could have an adverse effect on the status of the horse population, provided the entire exercise is based on adaptive management with sound monitoring systems in place. It is most likely that the majority of the assumptions presented below will be satisfied. However, any assumption which is not satisfied should be seen as a potential risk.

4.1 Horses of the Namib remains State property and shall not be privatized or translocated from the Garub area of the NNP and TKNP, unless it is for the purpose of rehabilitation under the approval of the MET.

4.2 Adequate funding will be available to the MET through own budget and external resources to allow for implementation of annual action plans/activities in the management of the horse population.

4.3 The MET will zone the Garub area of the NNP and TKN as “Managed Resource Use Zone”.

4.4 The MET will devolve the management and maintenance of the Managed Resource Use Zone and horse population management through a tourism concession to the Aus Community, in accordance with the National Policy on Tourism and Wildlife Concessions on State Land.

4.5 Effects of global climate change on frequency of extreme drought, or periodic global weather events do not have negative long term effects on the horse population.

4.6 Hyenas or any other predators shall not be destroyed as problem causing animals for preying on the horses.

4.7 Relationship between the MET and stakeholders remain cordial and impact positively on horse population management.

5. Strategic Direction

5.1 Vision
To sustainably manage a horse population of the Namib to ensure their survival, and for improved tourism development and cultural heritage.

5.2 Goal
To maintain a viable and healthy horse population that contributes to improved community livelihoods and economic development for the country.

5.3 Objectives
5.3.1 To maintain the integrity of the horse population in the Garub area of the NNP and TKNP.
5.3.2 To reduce conflict between horses and spotted hyenas (and people), and create conditions under which horses and spotted hyenas benefit communities.
5.3.3 To manage the Garub area in the NNP and TKNP as a Managed Resource Use Zone for the protection and conservation of the horse and hyena populations through collaborative management with the Aus Community.
5.3.4 To enable the realization of full economic potential of the horses to the Aus community and the country in general, through non consumptive utilization.
5.4 Principles
5.4.1 Horses of the Namib are a property of the State, through the Ministry of Environment and Tourism.
5.4.2 Horse population management is promoted as a tourism viable land use type in a Managed Resource Use Zone of the NNP and TKNP.
5.4.3 The State is willing and will continue to commit resources to the protection and management of the horses.
5.4.4 Cooperation between MET and other stakeholders to achieve the protection and management of the horses will be pursued at all times.
5.4.5 Predators make significant ecological and economic contribution to wildlife based land uses and shall be conserved in the Garub area or Managed Resource Use Zone of the NNP and TKNP.

6. Management Strategies

6.1 Zonation
Park management zonation is the spatial, multi-dimensional and temporal interpretation of management objectives and the identification of related management zones. Therefore, zoning provides an effective means of managing a species with multiple values in a human wildlife landscape.

Furthermore, zoning defines what can be done and cannot occur in different areas of the park in terms of natural resources management; cultural resources management; human use and benefit; visitor use and experience; access; facilities and park development; maintenance and operations. Through management zoning, limits of acceptable use and development in the park are established.

Typically zoning is used to:
• Provide protection for critical or representative habitats (and species), ecosystems and ecological processes;
• Separate (or contain) conflicting human activities;
• Protect the natural and/or cultural qualities while allowing a spectrum of reasonable (compatible) human uses;
• Enable damaged areas to be set aside to recover or be restored; and
• Simplify management.

Specific objectives
• To determine the zone for the Garub area of the NNP and TKP.
• To clarify permitted activities within the zone in relation to protection and management of the horses of the Namib.

Management approach
• The Garub area of the NNP and TKNP to be zoned as “Managed Resource Use Zone” and referred to as “Garub Managed Resource Use Zone, NNP and/or TKNP”, and fenced off with a hyena proof fence.
• Permitted activity in the Garub Managed Resource Use Zone shall be the existence and management of horses, which are not wild animals. However, this zone shall retain its natural and cultural appeal to the extent that they are able to accommodate tourism facilities such as view hides and related activities, which shall be oriented towards cultural features of the Aus community.
• Levels of use for the Garub Managed Resource Use Zone will be strictly controlled to prevent ant damage to the environment.
• The zone will retain its ecosystem functionality and the capacity to deliver a wide range of ecosystem goods and services. This shall include management of wild animal species such as hyenas, oryx, springbok and others in the area, as well as regulatory services such as drought effect mitigation and provision services such as fresh water, forage for horses and meat from wild animals.
• Since the Garub Managed Resource Use Zone has become an integral part of the tourism portfolio in the Aus/Luderitz area, horses shall remain in this zone and not relocated to other parts of the NNP or TKNP.
• Translocation of horses to private land under a custodianship programme shall not be considered.
• The horses of the Namib are to be restricted only to the Garub Managed Resource Use Zone.
• Any possibility for creation of a sanctuary for the horses shall be done so within the Garub Managed Resource Use Zone.

6.2 Management and Tourism Development

Horses of the Namib are recognized for their value in both tourism and as part of Namibia’s cultural heritage. As the horses are now associated with the NNP, the TKNP and the Aus-Luderitz communities, the following policies and legislation related to National Parks and communities shall apply:

• Nature Conservation Ordinance, 1975 (Ord. 4 of 1975), as amended
• Nature Conservation Amendment Act, 1995 (Act 5 of 1995)
• Nature Conservation Amendment Act, 2017 (Act 3 of 2017)
• National Policy on Protected Areas, Neighbours and Resident Communities, 2013
• National Policy on Tourism Concessions and Wildlife Concessions on State Land, 2007
• Revised National Policy on Human Wildlife Conflict Management, 2018

Strategic objectives
• To provide access and benefits from horses of the Namib to communities neighbouring the Garub Managed Resource Use Zone.
• To provide for devolution of management responsibility for the Garub Managed Resource Use Zone through tourism concession.

Management approach
• Award tourism concession in the Garub Managed Resource Use Zone to the Aus Community, which shall include photographic tourism through game drives, walks and view hides, in a joint-venture partnership with appropriate organization or development partner who shall ensure appropriate long term management of the horses and the preparation and implementation of a business plan to generate income and benefits.
• Access to the Garub Managed Resource Use Zone shall be well defined through the concession arrangement.
• Aus community shall have a well-organized recognized formal structure with clear governance guidelines that will benefit the community.
• The Joint Venture partnership would then take on the management responsibilities for the horses, with MET providing monitoring oversight, control and oversight, clearly defined in the concession agreement.
6.3 Supplementary feeding and water provision
Supplementary feeding becomes necessary when natural nutritional deficiencies affect the health and productivity of the horses, or when it is time of drought when there is limited grazing in the area.

Water provision in the Garub Managed Resource Use Zone through artificial water points is necessary as the area does not have natural pans due to low rainfall and to mitigate the effect of fences on migration.

Specific objective
• To provide for supplementary feeding and water supply, and maintain the status quo with regard to supplementary feeding and water distribution.

Management approach
• When necessary, and in time of drought, provide supplementary feeding to the horses.
• Any supplementary feeding shall only take place with approval from the MET based on veld assessment report.
• Maintain current existing artificial water points and constantly supply water to the horses and other species.
• Feeding and water supply for the horses should be replenished with the least possible noise.
• Water provision outside the Garub Managed Resource Use Zone shall be done so in accordance with the Management Plans of the NNP and TKNP.

6.4 Predator management
Predator management in the Garub Managed Resource Use Zone is critical to ensure the survival of the horses, while conserving the spotted hyenas in the area.

Spotted hyenas are an endangered species in Namibia and listed as “Vulnerable”. Therefore, killing and capturing hyenas to stop them from preying on horses is not a viable solution as it does not produce the desired outcome for the horses long-term and more importantly, it contravenes the basic principles of Protected Areas. Furthermore, It creates an ongoing human wildlife conflict situation with the potential to tarnish Namibia’s conservation image internationally and ultimately will lead to a tourism back lash against the horses.

Specific objective
• To protect and conserve predators in the two Parks, while protecting the survival of horses of the Namib for tourism development and cultural heritage.
• To provide for the most feasible long-term solution for spotted hyenas and horses in the Garub Managed Resource Use Zone.

Management approach
• Horses in the Garub Managed Resource Use Zone shall be fenced off, when need arise, or a small sanctuary shall be provided for in times of drought and/or severe predation that results in low survival rate of foals, or their range extended further in the park.
• Regular patrols shall be conducted to scare off the hyenas and protect the horses from predation.
• A healthy indigenous wildlife population shall be maintained at ecological carrying capacity or managed in the Garub Managed Resource Use Zone to diversify the prey species for spotted hyenas.
Management approach

• The MET will develop appropriate information material that can be used for awareness and existence of the horses, and their importance thereof.

• MET will work closely with relevant organizations and stakeholders in the management of the horses.

• Establish a “National Garub Horse Management Committee” consisting of the MET, Association/NGO with horse interest, Concessionaire and any other person/organization that the Ministry may see fit. This committee shall have specific terms of reference with functions that shall include providing commitment and mandate for horse management; providing directives, guidelines and approvals on matters related to management of horses; communicate and coordinate among participating and involved agencies and organizations; lobby and secure additional financial resources, through private sector donors and/or grants to augment the MET budget; and support the implementation of this plan.

• Establish a “Regional Working Group or Task Team” consisting of the MET, Regional Council, Association/NGO with horse interest, Concessionaire, Traditional Authority and any other person/organization that the Ministry may see fit. This group or task team shall have specific terms of reference with functions that shall include monitoring and supporting the day to day activities on the management of the horses.

• Communication to the media and the general public on matters related to the Horses of the Namib, including population statistics, birth, mortalities, veld condition of the area, water situation, tourism and visitor numbers to the area shall only be communicated by the MET, unless where specific approval is granted to a certain organization, committee or person to do so.
• Spotted hyenas in the Garub Managed Resource Use Zone shall not be destroyed or captured as problem causing animals as per the legislation. Any capture or destruction of spotted hyenas in the area shall be done in compliance with the legislation for management purposes only. Generally, it is not ideal to capture and translocate the spotted hyenas.
• Park management plans for NNP and TKNP shall address the management of predators outside the Garub Managed Resource Use Zone.

6.5 Research and monitoring
In order to manage the horses of the Namib effectively and efficiently, it is crucial to have adequate data that is available in a usable form for key decision-makers. Therefore, there is a need for more comprehensive data that enables the MET and stakeholders to understand the management issues and options for the horses and to evaluate the success of the interventions. Any research carried out should have methodologies that can accurately provide input to the management of the horses.

Specific objective
• To monitor the habitat and survival of the horses in the Garub Managed Resource Use Zone.
• To develop a standardized monitoring and reporting system on the horses and their habitat.
• To develop data and statistics for effective management of the horses and wildlife species in the area.
• To develop management indicators to enhance the interpretation of data.

Management approach
• Establish national data base for horse population management that include historical data and data from existing systems and current incidents in the MET.
• Implement the TKNP Biodiversity Monitoring Framework.
• Develop standardized data gathering and monitoring systems that are simple and cost-effective to implement, using a compulsory form which is filled regularly.
• Build capacity of stakeholders in collecting, recording and using data and ensuring there is systematic and consistent data recording that is stored at the MET.
• Any research done on the horses should be done so under the authority of the MET.

6.6 Public awareness, stakeholder engagement and coordination
In order to manage horses in the Garub Managed Resource Use Zone, there is a need to conduct awareness and engage with communities, farmers, private sector, associations, NGOs, Regional Council, line Ministries and the general public on specific measures and interventions.

It is also necessary to provide information on the horses in order to help the public to understand how best the horse population in the Garub Managed Resource Use Zone can be managed. It is also important for the MET to engage other stakeholders in the management of horses.

Strategic objective
• To provide for multi-stakeholder engagement and support in the management of horses.
• To create structures for coordination and collaboration in the management of the horses.
• To raise awareness and visibility on the existence of the horses of the Namib, and their importance thereof.
7. Implementation Framework

7.1 Institutional arrangements
The following are the roles and responsibilities in the management of horses in the Garub Managed Resource Use Zone:

**Ministry of Environment and Tourism**
The MET is the statutory body responsible for management of the NNP and TKNP. As, it is the lead agency in the management of horses in the two Parks and shall coordinate all activities of other organizations and stakeholders in the management of horses in Garub Managed Resource Use Zone. All activities of other organizations and stakeholders shall be conducted with written authorization or permission from the MET.

**Aus Community**
Aus community is the representative community for the management and benefit from the horses in the Garub Managed Resource Use Zone. The community shall have a representative committee that works with the MET in line with the community based conservation approach of the government and the National Policy on Tourism and Wildlife Concessions on State Land. The roles and responsibilities of the development partner to the Aus community shall be clearly defined in a contract.

**Regional Council**
Oversee that the horses of the Namib contribute to regional development and economic development of the region, as well as ensuring that benefits to the Aus community contribute to their development, poverty eradication and improved livelihoods.

**NGOs/Associations**
NGOs/Associations are responsible for technical, financial and advisory support to the Ministry and communities in the management of the horses. NGOs/Associations shall maintain collaboration with the Ministry, strengthen community engagement and business development in activities related to horse management. NGOs/Associations shall work with the Ministry and provide support in accordance with this plan, the Park Management Plans of the NNP and TKNP, and existing legislation and policies that is applicable in this regard.

**Established committees**
Established committees and working groups/task forces established under this plan provides the main channel through which coordination of all agencies and organizations involved or attached to the management of horses in the Garub Managed Resource Use Zone shall take place.

7.2 Resource mobilization and utilization
Resource mobilization shall be well structured in an open and transparent process, for approved activities, and communicated to the MET through the National Garub Horse Management Committee. Utilization of such resources shall be implemented through an agreed action plan.

7.3 Reporting
The Deputy Director: Southern Regions in the MET will be required to produce monthly and quarterly reports on the status of the horses and their habitat. In situation of severe drought and high predation, weekly reports shall be produced.
The Director responsible for park management in the MET shall produce annual reports based on the monthly and quarterly reports, to be submitted to the Minister through the Executive Director.

### 7.4 Action Plan
A detailed implementation action plan for this plan is provided in Annex 1.

### 8. Bibliography

8.1 Brown, C. undated. Feral horses and endangered spotted hyenas in national parks in the southern Namib – how to resolve the conflict.


8.4 Greyling, T. 2019. Evaluation of proposed strategies to manage the Garub Feral Horses and Spotted Hyenas. Namibia Wild Horses Foundation


# Annex 1: Implementation Action Plan

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Activities/Tasks</th>
<th>Baseline</th>
<th>Possible Indicator(s)</th>
<th>Lead Agency</th>
<th>Supporting Partners</th>
<th>Timeframe</th>
<th>Cost N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Zonation</td>
<td>Demarcate the Garub Managed Resource Use Zone with GPS coordinates and determined size</td>
<td>Boundary exist and known</td>
<td>Clear map with GPS coordinates and size</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Y1</td>
<td>300,000</td>
</tr>
<tr>
<td></td>
<td>Create sanctuary for the horses within the Garub Managed Resource Use Zone</td>
<td>None</td>
<td>Fenced off area when necessary</td>
<td>MET</td>
<td>Concessionaire</td>
<td>WN</td>
<td>TBD</td>
</tr>
<tr>
<td>2. Management and Tourism Development</td>
<td>Establish formal representative governance structure for the Aus community</td>
<td>Community committee exists</td>
<td>Governing body with constitution and benefit distribution plan established</td>
<td>MET</td>
<td>Regional Council</td>
<td>Y1</td>
<td>300,000</td>
</tr>
<tr>
<td></td>
<td>Define and clearly demarcate entrance to the Garub Managed Resource Use Zone with proper signage</td>
<td>Road network exist</td>
<td>Entrance gate established</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Y1</td>
<td>500,000</td>
</tr>
<tr>
<td></td>
<td>Award and operationalize tourism concession to the Aus Community</td>
<td>Old concession exist</td>
<td>Revised concession awarded</td>
<td>MET</td>
<td>-</td>
<td>Y1</td>
<td>150,000</td>
</tr>
<tr>
<td></td>
<td>Manage the horses through the JV partner</td>
<td>None</td>
<td>JV partner appointed</td>
<td>JV partner</td>
<td>MET</td>
<td>All years</td>
<td>As determined in work plan and through established committees</td>
</tr>
<tr>
<td></td>
<td>Provide management and monitoring oversight, supervision and control</td>
<td>MET structure exists</td>
<td>Reports produced</td>
<td>MET</td>
<td>-</td>
<td>All years</td>
<td>As determined in work plan and through established committees</td>
</tr>
<tr>
<td>3. Supplementary feeding and water provision</td>
<td>Provide supplementary feeding to the horses</td>
<td>Feeding provided in the past</td>
<td>Supplementary feeding provided when necessary</td>
<td>MET</td>
<td>Concessionaire</td>
<td>WN</td>
<td>As determined by MET through established committees</td>
</tr>
</tbody>
</table>
## Strategies

<table>
<thead>
<tr>
<th>Activities/Tasks</th>
<th>Lead Agency</th>
<th>Supporting Partners</th>
<th>Possible Indicator(s)</th>
<th>Baseline</th>
<th>Timeframe</th>
<th>Cost N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide water to the horses and other animals in the Garub Managed Resource Use Zone</td>
<td>Jv partner</td>
<td>MET</td>
<td>Water infrastructure exists</td>
<td>Daily</td>
<td>Y1</td>
<td>50,000</td>
</tr>
<tr>
<td>Finalize the review of NNP and TKNP Management Plans with specific action on water provision outside the Garub Managed Resource Use Zone</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Revised management plans drafted and approved</td>
<td>None</td>
<td>WN</td>
<td>500,000</td>
</tr>
<tr>
<td>Fence off the horses in Garub Managed Resource Use Zone during times of drought and severe predation</td>
<td>Metro</td>
<td>JV partner</td>
<td>Fenced off area when necessary</td>
<td>None</td>
<td>WN</td>
<td>100,000</td>
</tr>
<tr>
<td>Establish a national database for horse population management</td>
<td>MET</td>
<td>NGOs</td>
<td>Research work contributing to park management and decision making</td>
<td>None</td>
<td>MET</td>
<td>300,000</td>
</tr>
<tr>
<td>Develop information material for public awareness and engagement of stakeholders</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Books produced</td>
<td>Books produced</td>
<td>MET</td>
<td>500,000</td>
</tr>
</tbody>
</table>

## Timeframe

<table>
<thead>
<tr>
<th>Activities/Tasks</th>
<th>Lead Agency</th>
<th>Supporting Partners</th>
<th>Possible Indicator(s)</th>
<th>Baseline</th>
<th>Timeframe</th>
<th>Cost N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide water to the horses and other animals in the Garub Managed Resource Use Zone</td>
<td>Jv partner</td>
<td>MET</td>
<td>Water infrastructure exists</td>
<td>Daily</td>
<td>Y1</td>
<td>50,000</td>
</tr>
<tr>
<td>Finalize the review of NNP and TKNP Management Plans with specific action on water provision outside the Garub Managed Resource Use Zone</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Revised management plans drafted and approved</td>
<td>None</td>
<td>WN</td>
<td>500,000</td>
</tr>
<tr>
<td>Fence off the horses in Garub Managed Resource Use Zone during times of drought and severe predation</td>
<td>Metro</td>
<td>JV partner</td>
<td>Fenced off area when necessary</td>
<td>None</td>
<td>WN</td>
<td>100,000</td>
</tr>
<tr>
<td>Establish a national database for horse population management</td>
<td>MET</td>
<td>NGOs</td>
<td>Research work contributing to park management and decision making</td>
<td>None</td>
<td>MET</td>
<td>300,000</td>
</tr>
<tr>
<td>Develop information material for public awareness and engagement of stakeholders</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Books produced</td>
<td>Books produced</td>
<td>MET</td>
<td>500,000</td>
</tr>
</tbody>
</table>

## Cost

<table>
<thead>
<tr>
<th>Activities/Tasks</th>
<th>Lead Agency</th>
<th>Supporting Partners</th>
<th>Possible Indicator(s)</th>
<th>Baseline</th>
<th>Timeframe</th>
<th>Cost N$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provide water to the horses and other animals in the Garub Managed Resource Use Zone</td>
<td>Jv partner</td>
<td>MET</td>
<td>Water infrastructure exists</td>
<td>Daily</td>
<td>Y1</td>
<td>50,000</td>
</tr>
<tr>
<td>Finalize the review of NNP and TKNP Management Plans with specific action on water provision outside the Garub Managed Resource Use Zone</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Revised management plans drafted and approved</td>
<td>None</td>
<td>WN</td>
<td>500,000</td>
</tr>
<tr>
<td>Fence off the horses in Garub Managed Resource Use Zone during times of drought and severe predation</td>
<td>Metro</td>
<td>JV partner</td>
<td>Fenced off area when necessary</td>
<td>None</td>
<td>WN</td>
<td>100,000</td>
</tr>
<tr>
<td>Establish a national database for horse population management</td>
<td>MET</td>
<td>NGOs</td>
<td>Research work contributing to park management and decision making</td>
<td>None</td>
<td>MET</td>
<td>300,000</td>
</tr>
<tr>
<td>Develop information material for public awareness and engagement of stakeholders</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Books produced</td>
<td>Books produced</td>
<td>MET</td>
<td>500,000</td>
</tr>
</tbody>
</table>

## Remarks

- **Lead Agency**: Jv partner, MET, NAMPARKS
- **Supporting Partners**: JV partner, Concessionaire, NGOs, Private sector, International donors, Researchers
- **Possible Indicator(s)**: MET, Old park management plans exists, Revised management plans drafted and approved
- **Baseline**: Water infrastructure exists, Revised management plans exists, Fenced off area when necessary, Data base established at MET, Research work contributing to park management and decision making, Books produced
- **Timeframe**: Daily, WN, MET, MET, MET, MET
- **Cost**: 50,000 N$, 500,000 N$, 100,000 N$, 300,000 N$, 500,000 N$
## Annex 1: Implementation Action Plan

<table>
<thead>
<tr>
<th>Strategies</th>
<th>Activities/Tasks</th>
<th>Baseline</th>
<th>Possible Indicator(s)</th>
<th>Lead Agency</th>
<th>Supporting Partners</th>
<th>Timeframe</th>
<th>Cost N$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Create appropriate signage for the Garub Managed Resource Use Zone</td>
<td>None</td>
<td>Proper road signage erected</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Y1 Y2</td>
<td>200,000</td>
</tr>
<tr>
<td></td>
<td>Establish and operationalize appropriate committees</td>
<td>None</td>
<td>Committees launched</td>
<td>MET</td>
<td>NAMPARKS</td>
<td>Y1 All years</td>
<td>500,000</td>
</tr>
</tbody>
</table>