

# The Role of well-regulated Hunting Tourism in Namibia – in effective Conservation Management

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## **Abstract**

Namibia's hunting industry is increasingly threatened by animal rightists and opponent groups whose adversarial mindset is mostly based on emotion orientated information. The fatal consequences if closing hunting tourism in a country like Namibia are expounded in this study by critically investigating the input of well-regulated hunting tourism towards conservation in Namibia. Different factors have to be taken into consideration, regarding the country's attributes that differ significantly from other countries and their methods to achieve successful conservation management strategies. By conducting an in-depth interview with Mr. Volker Grellmann and by obtaining secondary data from local authorities and organizations, the current research investigates how well-regulated hunting tourism in Namibia is an important part of biodiversity conservation. The results outline that hunting tourism is crucial for the value of wildlife and yields for wildlife to have a greater benefit than livestock and crop farming in Namibia. Likewise, the country takes care of their valuable natural recourse. As a result, natural habitats are induced, and subsequently a steeply growing number of wildlife was recorded over the last 50 years in Namibia. Among others hunting tourism favors the development of rural areas and yields incentives to fight poaching and the illegal trade of wild animal products.

## 1 Introduction

### 1.1 Problem statement and motivation of thesis

Hunting is a critical subject in today's society. Novelli, Barnes and Humavindu, (2006) explained that the demand for eco-tourism is increasing, while hunting is not seen as an ethical form of tourism (p.62). Middleton, Stuart-Hill, Hamunyela and Lindeque (2017) reported that a lot of pressure from animal rightists, media influences and poorly regulated hunting activities contribute to its negative reputation. People tend to believe what they hear from various social groups, which is referred to the involvement of "unchecked emotions" (p. 62). Many lodges and guest farms in Namibia offer services for both consumptive and non-consumptive tourism. It is argued that hunting service providers in Namibia are confronted with strong criticism regarding the ethics of their offered hunting products (McNamara, Descubes and Claasen (2016) p. 1-2). However, NACSO (2015) argue that hunting tourism is the best income for conservation in Namibia (p. 66). Naidoo et al. (2016) found that revenues generated through hunting tourism help conservancies in Namibia to realize profits twice as fast than through non-consumptive tourism returns (p.628-638). As highlighted by Brown (2017), the effects of hunting tourism on Namibia's conservation success should be considered first before any actions to restrict or end hunting tourism are supported. Restrictions of hunting will result in a drop of wildlife value (p. 56). According to Uys (2017) a hunting ban causes many farmers to go back to domestic livestock farming and leaving no habitat for wildlife (p. 34-35). It is further noted by Middleton et al. (2017) that poaching would increase as soon as hunting tourism is gone (p. 62). The question "how can hunting tourism be a method of conservation in Namibia?" will be explored in this research paper.

### 1.2 Overall aim

To achieve conservation success in Namibia, conservation planning and implementation must be adjusted to the country's individual attributes. The goal of this paper is to explore how hunting tourism in Namibia contributes to wildlife prosperity.

### 1.3 Objectives

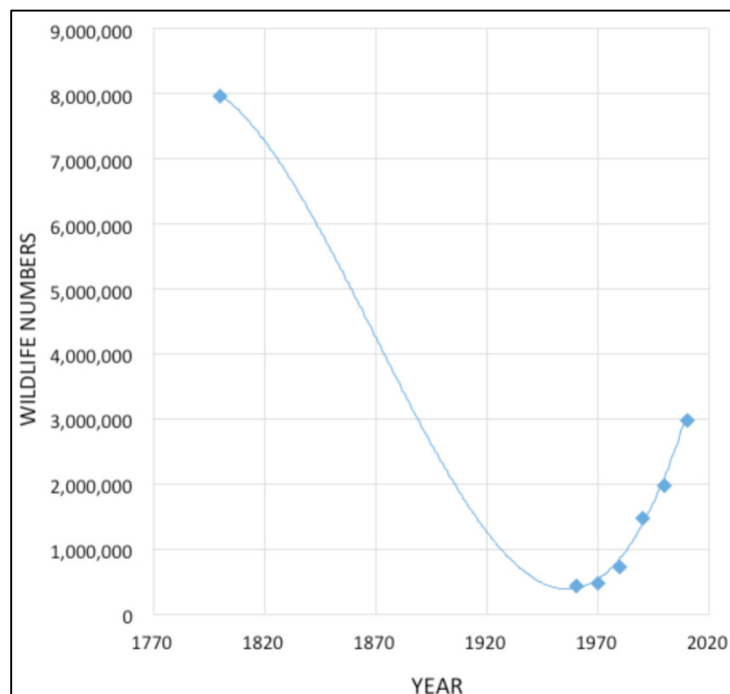
The following measurements are taken to answer the above-mentioned research question. Fundamentals of wildlife management in sub-Saharan Africa are reviewed by comparing wildlife farming to cattle ranching. Moreover, wildlife based tourism and hunting tourism is approached in detail by critically evaluating economic and social impacts of this sector. A closer look is also taken at wildlife management and its relation to sustainability. General principles of hunting tourism outcomes and practices in Namibia are examined in detail, which represent the major part of this research.

## 2 Literature Review

### 2.1 "One of the greatest recent agricultural transformations"

In accordance with Lindsey, Roulet and Romach (2007) hunting activities in Namibia were not regulated in the years before 1960 and led to a significant decline in wildlife numbers (p.455). As reported by Lindsey et al. (2007), the year 1960 was the turning point of wildlife value in sub-Saharan Africa, when the Government transferred the right of ownership of wildlife to private farmers. Farming with domestic stock became a subsidiary matter and the economic utilization of game increased rapidly (p.456). Bartels et al. (2016) value the transformation from no wildlife to wildlife as alternative income as "one of the greatest recent agricultural transformations". Furthermore, meat production, hunting, tourism and life animal sale are listed as sound utilization practices for wildlife management (p.85-86). Child and Suich (2012) disclosed that next to meat production, the most profitable use of wildlife is hunting tourism. Farmers increasingly introduced hunting tourism as an additional source of income. A high profitability of this sector resulted in a rapid increase of wildlife numbers on farms (p. 115-116). According to Lindsey et al. (2007), the growth rate of wildlife numbers in Namibia was 80 % within 20 years (p. 463). As it is shown in Figure 1, wildlife numbers in Namibia experienced a growth from half a million heads of wildlife in 1960 to three million heads of wildlife in 2015.

Figure 7: The development of wildlife numbers in Namibia



Source: Brown, 2017, p. 56.

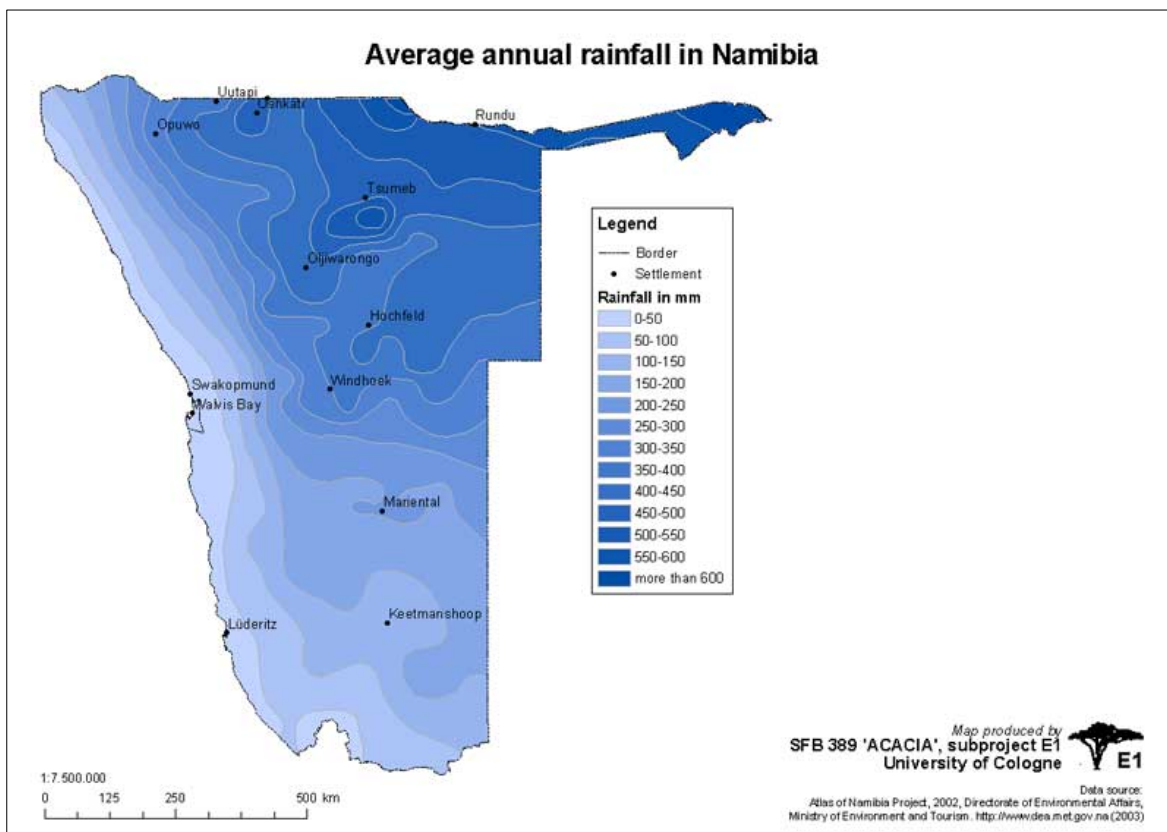
Bartels et al. (2006) explained that in 2010 revenues generated through game farming in South Africa accounted for 9.8 % of the GDP (p. 85). Barnes et al. (2009) further stated that in 2004 wildlife utilization in Namibia represented

2.1% of the gross national product, with 81% generated by tourism. In the years of 1970 until 2000 wildlife numbers presented a growth of 100% on commercial farmland. A 45% decline was monitored in the number of cattle, sheep and goat farming. The input of wildlife to the economy in 2004 was estimated to be three times as high in the following thirty years and simultaneously reaching its peak. It is necessary that wildlife-viewing and hunting based on tourism are maintained for sustaining and growing wildlife (p. 23-24).

## 2.2 Wildlife farming vs cattle ranching in Namibia

Bartels et al. (2006) analyzed that the advantage of wildlife compared to cattle farming is the versatility of production methods (meat production, live animal sale, eco-tourism and hunting tourism) which can achieve higher revenue in dry regions than cattle production alone. Only a few specific species of cattle are suitable for meat production whilst around 45 species of game can be utilized (p. 87-88). Barnes and De Jager (1996) observe that the majority of private farms in Namibia are situated in arid and semi-arid areas with little rainfall. After 1960 a notable change from domestic livestock to wildlife production was recognized (p.2). This occurrence can be referred to Brown's theory (2009) which explained Namibia's sensitivity to the climate change. Agriculture and livestock generate low revenues per ha compared to trophy hunting. Besides, wild animals are more resistant to droughts than cattle considering that Namibia is one of the driest countries in Africa (p. 4). (Figure 2 shows how rainfall increases from south to north from less than 50mm to more than 600mm per year.)

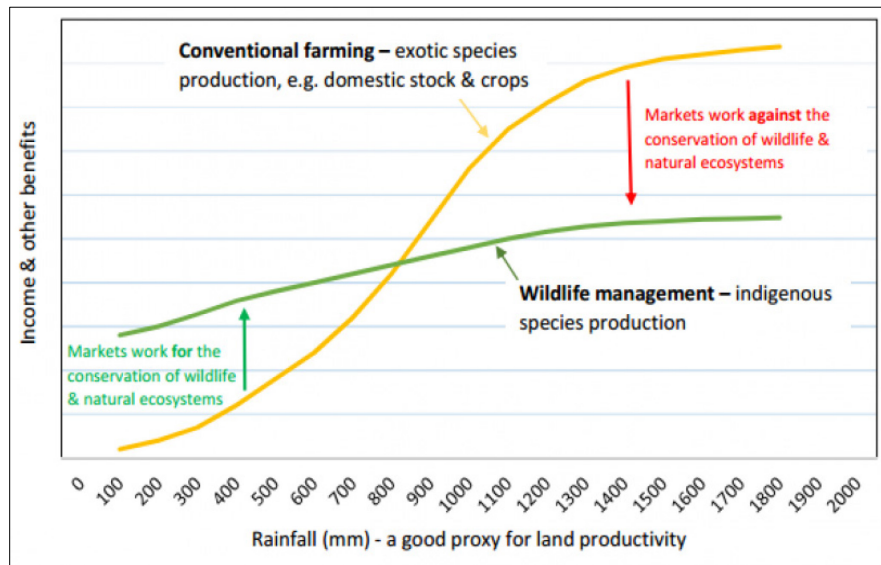
Figure 8: Average Annual Rainfall Namibia



Source: The University of Cologne at Acacia Project E1, 2004.

As it is explained by Brown (2009) livestock farming in Namibia is marginal, since it is “currently operating under rainfall conditions” and further rain shortages will result in unsustainable operations (p.21).

Figure 9: Income generated from wildlife - and livestock farming, varying with rainfall



Source: Brown, 2017, para. 7.

### 2.3 Wildlife based tourism

Novelli et al. (2006) described that the western populations increasingly seek the opportunity for a clean conscience when it comes to the loss of the natural habitat in their own country (p.64). It is claimed by Novelli et al. (2006) that the expansion of wildlife-based tourism in the last years can be attributed to the growing tourists' requirement of being in the closest possible communion with nature (p.64). Reynolds and Braithwaite (2001) explained that in order to manage wildlife successfully, the focus point should not solely be on the animals and their characteristics itself, but on humankind and its approach towards wildlife (p. 31). As it is further revealed by Reynolds and Braithwaite (2001), from an economic and conservative perspective, both tourism activities, wildlife-viewing and hunting are the most important utilization methods (p.31)

### 2.4 Consumptive tourism defined

Novelli et al. (2006) claimed that consumptive tourism, if well-regulated, can contribute to environmental sustainability in the same manner as ecotourism (p.64). In addition, Lindsey et al. (2007) noted that hunting tourism is less sensitive than eco-tourism towards political instability. In Zimbabwe a decline of 75% in tourist arrivals occurred

when the new land reform was introduced. The hunting tourism sector only faced a decline of 12.2% (p. 464). Barnes (2001) highlighted that consumptive tourism in form of hunting is the only utilization method that can compete with livestock farming in terms of economic efficiency in semi-arid areas. This makes hunting tourism to the most important factor to prevent habitat loss of wildlife due to livestock farming and maintain wildlife value in regions like the Kalahari (p. 150-151).

In this paper hunting tourism is referred to trophy hunting which is described by Lindsey et al. (2007) as "hunting by paying tourists and typically with the objective of selecting individuals with exceptional physical attributes (large horns, tusks, body size or skull length) and usually in the company of a professional hunting guide" (p. 456). As stated in Namibian nature conservation ordinance of 1975 a trophy hunter is defined as "the holder of a permit . . . who hunts the game mentioned on such permit for the sake of trophies" (as cited by Niekerk and Böttger, 1990, p. 44).

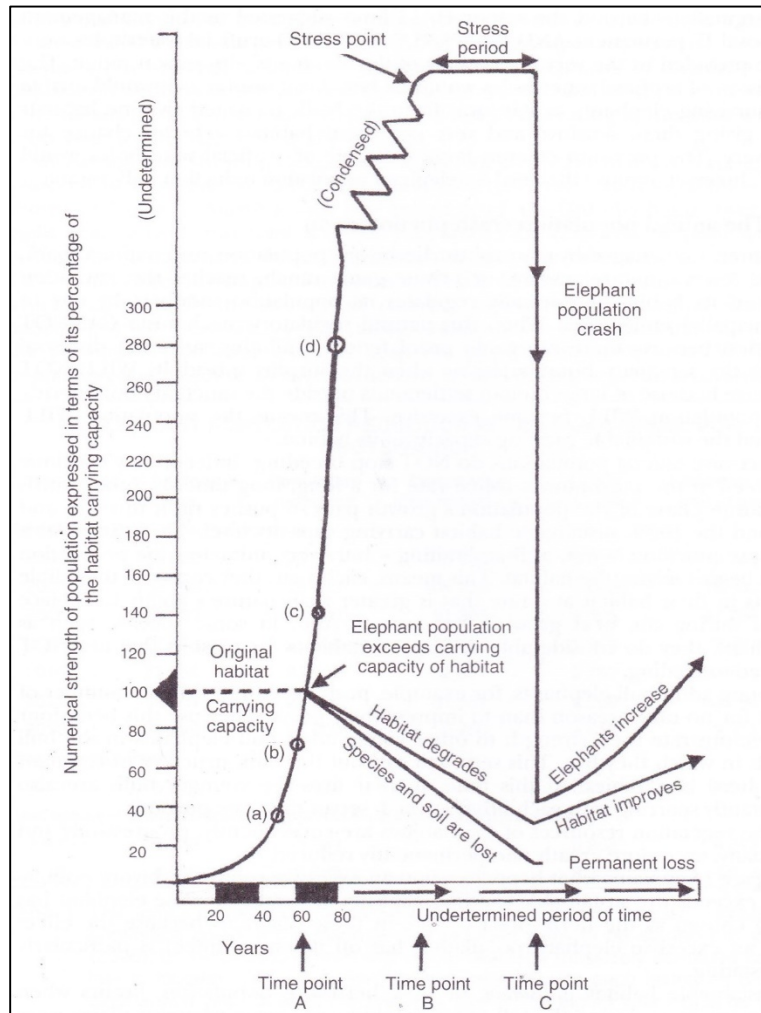
## 2.5 Hunting tourism under debate

Different interests in wildlife tourism as listed by Reynolds and Braithewaite (2001) "the values of conservation, animal welfare, visitor satisfaction and economic profitability" interfere with each other (p. 32). Novelli et al. (2006) pointed out, that the most rapidly increasing and widely accepted form of wildlife-based tourism is eco-tourism. People set a high value on sustainability and conservation while interpreting a non-consumptive use of wildlife as the most efficient form to fulfill their need (p.62). The greater part of visitors look at wildlife through the tourists' eye, whereby animals are solely subject to holiday purposes. Many indigenous populations in Southern Africa face wildlife on a daily basis when wild animals compete with their livestock or serve as only food source (p. 62-63). Lindsey et al. (2007) argued that the conflict of hunting tourism between animal rightists and "pragmatic conservationists [which include] hunters" is partly attributed to a lack of professional approach. Most published articles are based on feelings rather than facts and statistics (p. 457).

## 2.6 Sustainable wildlife management

Thomson (2006) determines two different categories of a species population condition. A safe animal population is identified as healthy and should be used "wisely and sustainable". An unsafe population is too low in species numbers and is not able to reproduce quick enough in order to survive unless it is protected from declining. Unsafe populations should be preserved until they have reached the status of being safe. New safe populations must be immediately managed as such (p. 22-24). Thomson (2006) further explained that if a species population is excessively overpopulated, meaning that the habitat cannot sustain the number of animals living in it, the carrying capacity is over 100% and is characterized as unsustainable. This phenomenon is attributed to the increase of habitat loss of wildlife due to increasing human populations (p.38-44).

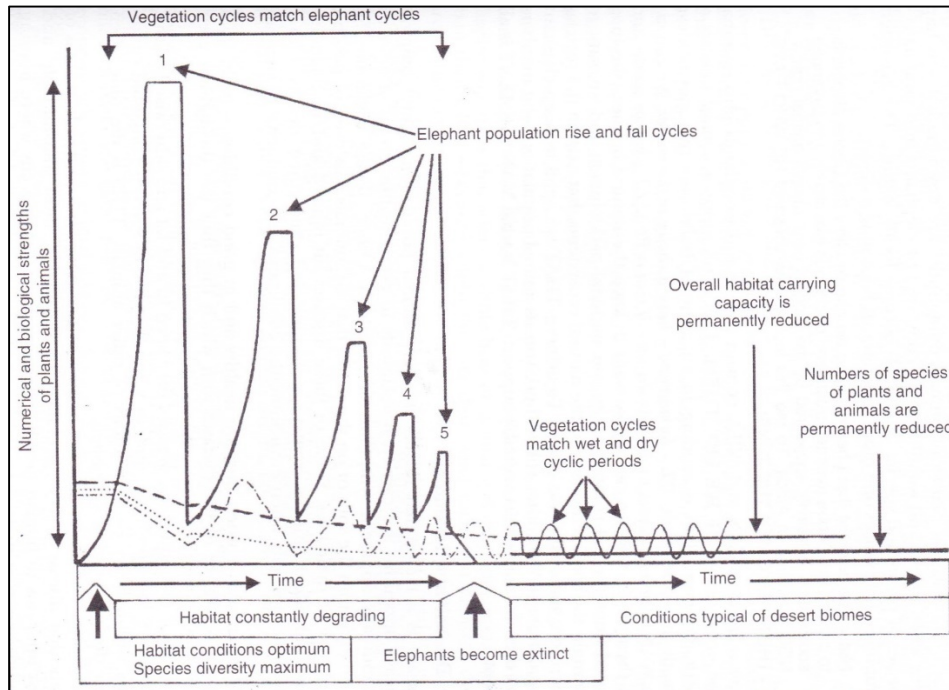
Figure 10: The impacts if an animal population exceeds the habitat carrying capacity



Source: Thomson, 2006, p. 44.

As described by Thomson (2006), once the population crashes, people blame it on the occurring drought. Animal populations recover again but only as long as the habitat can regenerate. If dependent plant species are lost, the animal species is lost as well. Many people suggest leaving wild animal populations alone without human management interference. The result is shown in Figure 5 as a “rise-and-fall” of an animal population in a specific habitat. Once the population has crashed, it will recover again for several times, but each time the optimum carrying capacity is overrun again by a rise of the population. The habitat is carried off further without having fully recovered before. The result is a permanent loss of several plant and animal species (p. 46-49).

Figure 11: How a prolonged exceeding carrying capacity of an animal population results in an overall species loss



Source: Thomson, 2006, p. 49.

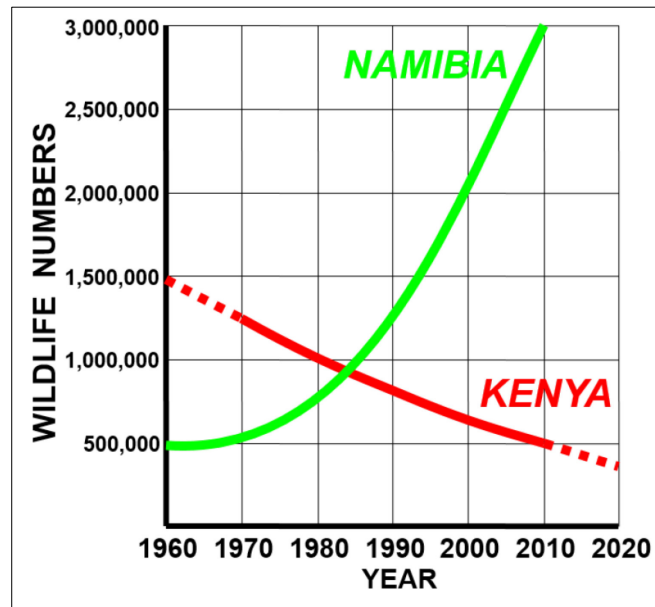
## 2.7 Hunting tourism in Namibia

### 2.7.1 An increase of wildlife numbers

Child and Suich (2012) note that before the change of ownership of wildlife starting in the year 1960, wildlife was owned by the government and farmers of private land were unable to use game economically. In fact, wildlife was competing with livestock for the same food source (p. 116). According to Child and Suich (2012), populations of the white rhinoceros and species populations with the natural habitat outside of Namibia have been well-established on private land today to enhance tourism income (p. 114). Figure 6 visualizes how wildlife numbers in Kenya show a constant decline when hunting was banned in 1977 compared to thriving numbers in Namibia, showing a sharp increase with the establishment of the hunting tourism industry. Wildlife numbers experienced a growth from 500,000 to 3 million heads of wild animals within 50 years.



Figure 12: A comparison of Namibia and Kenya in terms of wildlife numbers



Source: Brown, 2017, para. 8.

The Namibia Professional Hunting Association NAPHA (2016) acknowledged that Namibia is the paragon for prosperous conservation management while habitat protection is addressed strongly. Wildlife has become an alternative form of land utilization after 1960 with hunting tourism to be the most profitable method. Accordingly, an increasing number of farmers created new habitats for wildlife by selling their livestock and likewise they protect their new source of income. As a result, hunters ensure habitat for wildlife in Namibia. With an ever-growing human population, expanding into the natural environment, human-wildlife conflicts increase, and it is solely wildlife's "financial value" that ensures its survival. As NAPHA further outlines, Namibia's conservation success is the example, that hunting tourism ensures natural habitats without causing any bionomic damage. It is highlighted that hunting tourism on private farmland in Namibia generates 350 million Namibian Dollars per year and creates more than 3500 jobs (p. 3-5).

### 2.7.2 Community based Natural Recourse management

Barnes et al. (2009) argue that 88% of wildlife numbers is stocked on private farms (p.23). As reported by the Namibian Association of CBNRM Support Organizations NACSO (2015), the Community based Natural Resource Management CBNRM was initially introduced before 1990 to reintroduce the use of wildlife for people in rural areas. It was based on the same idea as the transformation of wildlife ownership to private landowners in 1960. NACSO (2015) elaborated that wildlife was a threat and still is for people farming with livestock.

The CBNRM program enhances the sustainable use of natural resources within communities. Land that is used for CBNRM practices accounts for 20% of the Namibia's surface area with 82 communal conservancies that are registered and 5116 jobs that were created. Moreover, elephant populations tripled from 1995 until 2015 due to

CBNRM. It is further argued that community conservation favors free ranging animal populations since communal conservancies relate to state protected areas and range across national borders. Besides, CBNRM fosters habitat protection, a flourishing wildlife biodiversity and enhances the development of rural areas which benefits the local population (p. 6-10).

NACSO (2015) reported that the mission of CBNRM is to restore the environment for wildlife and to ensure healthy wildlife populations: "using the broadest range of indigenous resources possible, in order to enhance their value and ensure their protection, as well as the protection of large areas of natural habitat". Therefore, quotas of game that can be utilized are set in agreement with the Ministry of Environment and Tourism MET and according to annual game counts. Management practices are constantly adapted to carefully monitored game numbers. Overall wildlife numbers in communal conservancies have recovered greatly and a decline in Human-wildlife conflicts was perceived (p. 29-33).

In accordance with NACSO (2015), hunting tourism provides a great source of income for communal conservancies and finances anti-poaching efforts as well as sustainable management practices. Partnerships with private tourism and hunting outfitters have been created. The long-term observations have shown that consumptive tourism generates higher returns than non-consumptive tourism in communal conservancies, with 60% of the total income and its low off-take rate does not influence animal populations. It is highlighted, that the majority of conservancies relies on income from hunting tourism, to fund their conservancy. Wildlife is needed as food supply and therefore gains additional value and support. Hunting tourism favors food supply, since the meat is used to feed the communities and only the trophy is taken by the hunter (p. 33-66).

Overall, as stated by NACSO (2015), "conservation hunting is ...positive land use that can safeguard habitat against destructive uses while generating significant income for communities living with wildlife" (p. 72).

### 2.7.3 Legislation

Hunting, especially in Namibia is subject to regulations to achieve a sustainable and ethical performance. As Thomson (2006) noted, animal rightists' argument, that the trophy quality diminishes due to the fact that hunting tourists eliminate breeding bulls with the biggest horns (p. 28). As explained by NAPHA (2016) ideally the oldest animals that have fulfilled their role to reproduce with worn horns are targeted (p. 4). In accordance with Thomson (2006), Namibia ensures that the quality of trophies is sustained by recording off-take numbers and horn sizes and likewise to create statistics from that numbers (p. 28). As it is stated in the Nature Conservation Ordinance of 1975, every hunting client needs a permit before a hunt for the sake of trophies may take place in Namibia. The permit states exactly how many animals of which species and where he is allowed to hunt. It is further grounded, that every professional hunter must provide complete annual information about the safaris he has undertaken. Furthermore, a detailed information of each hunting client and the number of species hunted must be endorsed. If a hunting outfitter offends against the regulation, his registration as such can be withdrawn (p. 55-56). According to the Attorney-

General of the Republic of Namibia (2017), Namibia sets the highest value on well-managed and sustained hunting practices to ensure a healthy biodiversity for future generations. The article 95 (1) of the Namibian constitution enshrines the sustainable use of wildlife in Namibia:

The State shall actively promote and maintain the welfare of the people by adopting, inter alia, policies aimed at the maintenance of ecosystems, essential ecological processes and biological diversity of Namibia and utilization of living natural resources on a sustainable basis for the benefit of all Namibians, both present and future (p.2).

In accordance with the Attorney-General of the Republic of Namibia (2017), hunting tourism is an advanced tool for conservation management in Namibia (p. 2).

#### 2.7.4 Code of hunting conduct

As Bartels et al. (2016) described "legislation only defines what is legally acceptable, but different hunters have different views on what is personally acceptable within the legislation" (p. 675). Coomber (n.d.) explained that ethical behavior is defined by the actions that people take, when no regulations exist. He shortly described ethics as "unwritten laws". As it is stated by NAPHA (2006), Namibia has developed high standards of hunting ethics. These are ensured by NAPHA. NAPHA is "the official representative of the trophy hunting sector in Namibia" (p. 26). As it is designated by the Attorney-General of the Republic of Namibia (2017), the new hunting code of conduct for Namibia includes that hunting activities may not provoke downsizing or destroying of natural habitats. Every action of hunting guides, professional hunters and anyone who involves in the hunting tourism sector should be sustainable. Hunting must target the protection or improvement of natural habitats and biodiversity. Moreover, solely animals that are past their reproduction state should be hunted for the sake of trophies. Subsequently, a trophy measuring system, the Namibian Quality Control NQC was introduced, to verify the quality of the trophy (p. 2-4). As explained by Niekerk and Böttger (1990), this system helps to establish valuable statistics of trophy quality tendencies to constantly align management practices. Namibia has statistics from 40 years back of all animal species which occur in the country. Moreover, the NQC prevents hunting of undersized trophies by having set up a minimum measurement requirement of the horns of each species (p. 105). The Attorney-General of the Republic of Namibia (2017) further underlines that the trophy alone must not be the reason to hunt. The most important aspect of a hunt is the overall experience including all its side aspects of good hospitality, the expertise and friendliness of the professional hunter and especially the close relationship to nature. The trophy at the end should be seen as a bonus and later as a remembrance of the overall hunting experience. Moreover, any hunt must take place under a "Fair Chase", which means the animal to be hunted must have a chance to escape the hunter as it would do under natural conditions. The area in which the animal is located must be large enough for it to breed, to feed itself and to escape. Every hunting action should amplify sustainability, the preservation of populations and hinder biodiversity loss. Furthermore, hunting practices and methods should take place under decent conditions. Local communities should be considered when making use of resources. Knowledge regarding sustainable and ethical hunting practices and their contribution to conservation should be passed on to others. (p. 4-9).

### **3 Research Methods**

#### 3.1 Overview

The question of this research is, how hunting tourism can be a method of conservation in Namibia. Namibian sources have been consulted, MET and NAPHA to get additional information through statistics regarding the development of hunting tourism and conservation in Namibia. Primary data in form of an in-depth interview with the founder and long-term president of NAPHA, Volker Grellmann was conducted, to gain an analytic overview of how hunting tourism is practiced in Namibia. Mr. Volker Grellmann, was chosen because of his long-term experience and involvement in the development of the hunting tourism industry in Namibia. His exceptional expertise of the thesis' topic was considered sufficient to gain all essential data to answer the research question.

#### 3.2 Interview Guide Design

The Interview consisted of 20 questions to obtain a detailed understanding of hunting tourism in Namibia. The Interviewee was asked about how he experienced the hunting tourism industry in Namibia from 1960 until today. He is further questioned about the development of wildlife numbers in contrast to the simultaneously progressing hunting tourism industry. In addition, the candidate is interviewed about the shift of wildlife value with an increasing tolerance towards wildlife in Namibia. The interviewee was also requested to elaborate on hunters' attributes as well as hunting ethics. Likewise, the effects of banning hunting tourism are enquired while comparing Namibia to Kenya. Furthermore, several questions are asked about Namibia's conservation success, in terms of wildlife numbers, anti-poaching efforts, ethical standards and communal conservancies.

### **4 Research finding**

#### 4.1 First steps to conservation

The first question refers to the candidates' experience how hunting tourism originally started in Namibia. The interviewee pointed out that hunting tourism did not exist in Namibia at times when he started his carrier. Grellmann amongst others, including Mr. Basie Martens, who is considered to be the first professional hunter in Namibia, effectively started hunting tourism in Namibia. The candidate pointed out that classifications like the term 'professional hunter' or 'hunting guide' were not known. Likewise, the term 'trophy hunting', which was changed to conservation hunting in 2017, did not exist. Grellmann explained that these terms only developed after the foundation of NAPHA in 1974, when all necessary regulations started to develop.

The interviewee explained that hunting tourism as such was largely unknown in Namibia and outlined the difficulty to receive a hunting permit. It was at the discretion of the administrator of Namibia whether a permit was issued, and the process involved the application and reasoning why people should be hunting in Namibia. Furthermore, hunting tourism was restricted to the month June until July or May until August. When the notable slow output in

trophy hunting was recognized, overseas hunting tourists were allowed to hunt through the year and only later a closed season for December and January was introduced, when considering the peak breeding season of most animal species. Grellmann noted that the government decision in 1968 to give the right of ownership to landowners only came to fruition with the ordinance of 1975. He explained that if farmers have the rights over certain species, they will look after their animals. Once landowners take possession of something, "their cattle are their own, the sheep are their own, now some of the game species were their own", the government hoped that people would look after their animals. Although the desired phenomenon occurred, it was not always a full success story. Grellmann explained that the Germans in Namibia always took care of their game and exercised according to the hunting code of ethics which they were used to in their home country. When the South Africans suddenly had the right of ownership of game, "they would have shot the last Kudu on their farm to make biltong". Consequently, the government almost revoked this legislative change. However, with the ordinance of 1975 every transaction involving income generated from naturally resources was restricted to a written permission. It is required to obtain a permit for "shoot and sell" purposes and especially the 'biltong hunt' had to be controlled.

#### 4.2 The shift of wildlife value

The second question directs to the shift of the value of wildlife in relation to the transformation of ownership of game to landowners in 1960 (Lindsey et al., 2007, p.456). The interviewee refers to start-up difficulties when building up the hunting tourism sector in Namibia. He explained that nature conservation did not want to sell game to overseas people since only little animals were left in Namibia. Grellmann outlined that this situation cannot be compared to the Namibia we see today with ten times more game than the country ever had. The Interviewee firmly believes that if people get something out of wildlife, they will put something in. He acknowledged that this shift has been taken place in Namibia from 1960 until today. People made more place available for wild animals and the place they made available for wildlife was subtracted from cattle, goat or sheep farming. Grellmann believes that today no farmer would remove game to put back goats because a lot more income is generated from wildlife. The following paragraph relates to the statement of Brown (2017) that wildlife numbers increased from half a million in 1960 to three million heads of wildlife today (p.56). The candidate repeated that Namibia has more wildlife since it became the property of ground owners and ground owners can make a living out of it. Furthermore, wildlife is more efficient than livestock farming, and people have learned to know that there is money to be made in wildlife, which is not only referred to the animal and the meat but from everything going around it, especially hunting tourism.

#### 4.3 Communal conservancies

When asked about the change of attitude towards wildlife among the indigenous people at the time when the famous conservancy program was introduced, the candidate valued the efforts of MET and WWF. He explained the intention of WWF to assist local population groups in handling their wildlife. They were confident with the idea to simply transplant the policy of wildlife ownership to local population groups living in northern rural parts of Namibia. Grellmann and his colleagues were skeptical to base this project on the same principles as it was done on private

farms before. He explained that the people in the northern parts of the country were poor and to grow conservation ideas on an empty stomach is very difficult, "if there is a good meal walking by your hut". Subsequently, WWF managed to get funds followed by a five-year project. According to Grellmann, it was a very artificial process which developed into a full-blown program today. He further noted that a lot of the people yield success in their conservancies. However, Grellmann explained that there are not enough takers for their products, meaning tourism and trophy hunting.

#### 4.4 The legalization of rhino horn and elephant tusks

Question number three discusses the current debate to legalize the trade of rhino horn and elephant tusks due to the increasing demand of Asian countries. The Candidate disagrees with people's argument that selling rhino horn and elephant tusks legally would result in an uncontrolled trade. He argued that rhino horn consists of keratin, the same substance as finger nails, which is normally worth nothing. He highlights that the first settlers who came to Namibia shot a number of rhinos for its skin and meat purposes when they were tracking through the country. However, they never took the horn along. Grellmann noted that rhino horn has only received its medicine value when Africa contacted the Asian and eastern countries. He further explained that burning down rhino horn and elephant tusks to eliminate it will not decrease poaching. It would in fact make less difference to destroy it, if Africa were the richest countries in the world. Notwithstanding that most sub-Saharan countries like Namibia must finance rhino protection and anti-poaching for elephants. Moreover, Grellmann believes that the threat of poaching never stops due to the existence of extremely poor people who risk their lives in poaching animals to make an existence out of it. He further addressed that South Africa's largest rhino farm would generate 2.5 million Rand per year if farming with rhinos would be legalized. Grellmann argued that the horn of a rhino can be cut off without killing the animal and regrows to its original size within three years. One rhino horn realizes 5 times more profit than cattle production per year. In addition, the horn can be cut off again after 3 years, although a rhino with a chopped off horn has lost its authenticity. Still, the interviewee observed that the demand for rhino horn as a medicine will even increase if trading is legalized as it is a traditional medicine. It is impossible to prevent people who truly believe into rhino horn as cure for all kinds of diseases from using it. The candidate underlines that the demand is not only driven by China, Korea and Vietnam; "the demand is there, and it cannot be taken away from them". Grellmann suggests that a given demand should be produced without poachers having to kill the animal.

#### 4.5 Conventional farming

The next question refers to the theory that wildlife farming is more efficient than livestock farming. The respondent gave a visual explanation of a ten-thousand-hectare piece of land in Namibia comparing livestock to game in terms of the species diet preferences. Cattle or any livestock eat grass. Besides, wildlife eats the shortest grass from little forbs on the ground up to five meters high vegetation from the big trees and everything in between. Subsequently, the off-take in kg of meat can be much more compared to cattle since more meat can be produced from the variety of wild animals that occur in a specific habitat.

#### 4.6 Attributes of hunting clients

The following question discusses general benefits of hunting tourism in Namibia. As the candidate specifies, clients shoot an average of four animals and only the trophy (horns and skin) is taken along. The trophy has no value to the farmer and is often thrown away when meat hunting is carried out. For the privilege to shoot an animal the client pays ten to fifteen times more than the meat is worth. Besides, the meat stays in the country and farmers feed their workers, sell or donate it to poor underprivileged people who have no access to food. Next to the trophy value and the meat value, the daily fees payed by the client are another benefit.

The next question examines the behavioral change of hunting clients who visit Namibia. When discussing the quality of hunters, Namibia started off with the German speaking countries Germany, Switzerland and Austria. In agreement with the interviewee they all have a hunting culture. Most of them are hunters in their own country and they are very disciplined and fair. They do not want to sit on a deer-stand when going on a hunting Safari in Namibia since that is what they mostly do at home. Furthermore, they appreciate the different cultures and they want to have an all-round experience. Grellmann acknowledged that these attributes are also offered in Namibia. Southern countries like Italy and Spain have a totally different hunting culture, they simply want to shoot. Besides, the American hunter comes for one or two species which he might has hunted in other countries before. However, he heard that Kudus in Namibia have a better trophy quality and he decides to visit Namibia for one Kudu. The interviewee mentioned a short story during the interview which helps to visualize the important attributes of hunting tourism that include a low off-take rate and a high financial contribution. Grellmanns' client from America wanted to have a Kudu trophy over fifty-five inches. Grellmann and his hunter looked at hundreds of Kudus, but his client was very selective. It was not only the horn length; moreover, the animal had to be an old one. Since they did not manage to get his desired trophy on the clients first trip he visited Namibia again in the same year. They only hunted the desired Kudu on the second trip, on the second last day. It was a very old animal and its horn length almost reached 60 inches.

#### 4.7 Hunting tourism to prevent poaching and habitat loss

One of the most important questions for this research concerns the impact of a hunting ban on wildlife conservation in Namibia. As reported by Grellmann, the first hunting ban that no one considered possible was in Kenya in 1977. Kenya was in his opinion a hunting country like Namibia with a flourishing biodiversity including lions, buffalos and the biggest elephants in Africa. As stated by Grellmann, Namibia was a poor in terms of wildlife when comparing it to Kenya at that time. The hunting ban in Kenya came over night and at least 20 taxidermy companies went out of business. Grellmann further explained that Kenya was the number one hunting country since the beginning of the century and that it was a political decision by Kenya's president Jomo Kenyatta. He requested the ban of hunting in Kenya and no one considered his demand. This was also the start of animal rightists when the international community gave Millions of dollars to him as soon as he closed hunting. The hunting ban in Kenya happened on the highest political level. Furthermore, the mother of Kenyatta stood behind the largest illegal ivory trade that has taken place on this planet. In the moment of closing hunting no policeman was left to protect wildlife. For the reason that every professional hunter automatically acts as policeman who does not want his animals to be poached. Grellmann

describes that with the disappearing of hunters a gigantic vacuum emerged. Elephants were shot down to 1/8<sup>th</sup> of their original population within five to six years. From 24,000 rhinos 600 are left today. Kenya is the example that everything broke down when hunting was banned. Today there are only small pathetic remains of Kenyas' wildlife left. Next to a few national parks, the capital Nairobi has become massive today and some buffalos pass by the fence or a few lions are seen occasionally on the street but are shot right away by the police. In addition to that, the interviewee outlines the next real threat, the explosion of the human population. He described that "in the past, Africa was a wonderful sea where all the animals lived, with a few little islands of people. Today everything is full of people and only a few islands are left with wild animals". Grellmann further highlighted that the incidents of the human-wildlife conflicts increase every year for the reason that wildlife has no space anymore. In comparison to Kenya another indicator for Namibia's conservation success in terms of wildlife numbers is that Namibia still has space for wildlife.

#### 4.8 Conservation hunting in Namibia

The next question is meant to discuss the input of hunting tourism to conservation in Namibia. The Interviewee explained, that conserving does not exclude utilization and that preserving means no use. He took the example of the wild dog which is the first species that is going to die out in Namibia if nothing is done about it. He insisted that this species should be preserved. Moreover, Namibia is the only country in the world that states in its constitution that sustainable utilization is allowed. The candidate argued that if something is unsustainable it should never be applied. He specified that sustainability means to "never touch the capital just take the interest off and always leave the capital there then it will be there forever". Many people misunderstand the word conservation.

#### 4.9 Namibia's conservation success

There has been a change of hunting in Namibia in terms of wildlife numbers. People say hunting has been commercialized and it is a business and too many hunters come to Namibia. Grellmann explained that for many farms it has become a business because wildlife multiplies. Some farms today have from every species 40 % too many. Animals need to be taken away and the most ideal form is to utilize them through trophy hunting but the required number of trophy hunters to control wildlife numbers cannot be hosted on such farms. The interviewee observed that these farms must cull up to 300 heads of some species because they breed so fast. There is no market for life-animal sale since every farm has enough wild animals. Grellmann added that when he started his hunting business one never thought to cull eland because they barely existed in Namibia. Today they are found on every farm. This example highlights how wildlife experienced a growth while hunting tourism was undertaken at the same time. The interviewee stated that without well-regulated hunting the reproduction of wildlife would have never been possible. Statistics regarding trophy size and wildlife numbers in Namibia beginning in the year 1976 onwards show stable results. Grellmann pointed out that the permits, numbers and measurements of all species are still the same. In 2017 statistics of the last 17 years showed stable populations with one exception; the Kudu antelope showed a



little decrease due to rabies. Furthermore, the animal species that really took a dip in the last years was the warthog. However, this is attributed to droughts. Warthogs are the first animals that lose body conditions during droughts.

#### 4.10 Steps to secure hunting tourism in Namibia

Presently, Namibia works on a new legislation and a new code of hunting conduct. Ethical standards of hunting tourism in Namibia are reworked and ensured through Namibia's professional hunting association. In 2009, NAPHA put up a new code of conduct which was revived in 2016. Together with the Namibian government the new code of conduct was written in 2017. It will be an attachment to the legal hunting license and the visiting hunter and the professional hunting guide will have to sign that they have read it before they are allowed to hunt. According to Grellmann, Namibia has always been in the forefront when it comes to ethical hunting. "They have always had a code of hunting conduct and they were always the guiding light anywhere in southern Africa.

If hunting tourism is closed in Namibia a drastic decline in wildlife will occur as it has happened in Kenya. Poaching and habitat loss will occur since not all the land is suitable for ecotourism and the market potential is limited. Farmers will substitute game with livestock and 'policeman' who look after wildlife will be gone to a certain extent. Another significant result that underlines Namibia's conservation success that is based on hunting tourism is the input of NAPHA and hunting outfitters to anti-poaching efforts. Furthermore, Namibia takes steps to ensure conservation by constantly adjusting rules and regulations according to statistical outcomes of population numbers and trophy quality. All hunting activities are tied to the new code of conduct to ensure ethical standards. It is important to mention that Namibia sets high value on ethics which is further emphasized when NAPHA ended the partnership with PHASA as soon as South Africa allowed hunting of canned lions.

## 5 Conclusion

To answer the research question of how hunting tourism is part of conservation in Namibia the word conservation should be understood first. As Grellmann described conservation means to "never touch the capital just take the interest off". Bartels et al. (2016) describes hunting as the "backbone" of conservation (p.86). The need of an intense relationship between humans and wildlife by the western populations revealed from the time when no wildlife was left in their countries. However, measures undertaken to preserve little species populations in those western countries cannot simply be implemented in countries like Namibia to sustain the countries wildlife heritage. Different factors must be considered. As it is shown in Figure 3, factors to sustain wildlife in Namibia positively interact if rainfall is below 800 mm. This is explained due to the marginal profitability of domestic stock farming when rainfall is relatively low. If rainfall is measured above 800 mm livestock and crop farming seem to generate higher income than wildlife farming. Since Namibia is one of the driest countries in Africa it can be concluded that conventional farming finds higher interest in most western countries due to higher rainfall. These findings correlate with the value of wildlife which according to Grellmann only exists if people can make money out of it. Hunting tourism is next to wildlife-viewing tourism the most important form of wildlife farming in Namibia. Grellmann characterized hunting as "low off-take and high value", which favors the conservation of species populations and financing anti-poaching efforts.

In Namibia wildlife has a high value and is needed and therefore, its numbers are thriving. However, hunting tourism is increasingly under debate. Yet, a no use of wildlife populations results in their extinction. Wildlife populations cannot be regulated by nature anymore or without human interference. Namibia can be described as the leading example of conservation success with hunting tourism to be identified as major contributor. It is of vital importance to highlight that next to the thriving wildlife numbers, Namibia sets a high value on an ethical hunting code of conduct and is continuously monitoring its wildlife numbers to adjust rules and regulations that all practices remain sustainable.

## References

- Average Annual Rainfall Namibia [Map]. (2004). Retrieved from the University of Cologne at Acacia Project E1 Digital Atlas of Namibia website: [http://www.uni-koeln.de/sfb389/e/e1/download/atlas\\_namibia/pics/climate/rainfall-annual.jpg](http://www.uni-koeln.de/sfb389/e/e1/download/atlas_namibia/pics/climate/rainfall-annual.jpg)
- Barnes, J. I., & De Jager, J. L. V. (1996). Economic and financial incentives for wildlife use on private land in Namibia and the implications for policy. *South African Journal of Wildlife Research-24-month delayed open access*, 26(2), 37-46. Retrieved from: [https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKewjCoKHKmN7XAhWJB8AKHSCVDtIQFggkMAA&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.470.3322%26rep%3Drep1%26type%3Dpdf&usg=AOvVaw356EITBf5JAZ\\_EaF3JqqSY](https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKewjCoKHKmN7XAhWJB8AKHSCVDtIQFggkMAA&url=http%3A%2F%2Fciteseerx.ist.psu.edu%2Fviewdoc%2Fdownload%3Fdoi%3D10.1.1.470.3322%26rep%3Drep1%26type%3Dpdf&usg=AOvVaw356EITBf5JAZ_EaF3JqqSY)
- Barnes, J. I. (1998). *Wildlife conservation and utilisation as complements to agriculture in southern African development* (No. 27). Windhoek, Namibia: Directorate of Environmental Affairs, Ministry of Environment and Tourism. Retrieved from [https://www.researchgate.net/profile/Jonathan\\_Barnes3/publication/254881423\\_Wildlife\\_conservation\\_and\\_utilisation\\_as\\_complements\\_to\\_agriculture\\_in\\_southern\\_African\\_development/links/5412a6170cf2bb7347daf2f1.pdf](https://www.researchgate.net/profile/Jonathan_Barnes3/publication/254881423_Wildlife_conservation_and_utilisation_as_complements_to_agriculture_in_southern_African_development/links/5412a6170cf2bb7347daf2f1.pdf)
- Barnes, J. I. (2001). Economic returns and allocation of resources in the wildlife sector of Botswana. *South African Journal of Wildlife Research-24-month delayed open access*, 31(3-4), 141-153. Retrieved from <https://journals.co.za/content/wild/31/3-4/EJC117126>
- Barnes, J. I., Nhuleipo, O., Baker, A. C., Muteyauli, P. I., & Shigwedha, V. (2009). Wildlife resource accounts for Namibia, 2004. *Windhoek, Namibia: Ministry of Environment and Tourism*. Retrieved from [https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKewjoiO6r29zXAhXMBcAKHdGpC6lQFggsMAA&url=http%3A%2F%2Fwww.the-eis.com%2Fdata%2FRDPs%2FRDP79.pdf&usg=AOvVaw2Bdd5rNlrZvZ\\_--1pwj0Eb](https://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKewjoiO6r29zXAhXMBcAKHdGpC6lQFggsMAA&url=http%3A%2F%2Fwww.the-eis.com%2Fdata%2FRDPs%2FRDP79.pdf&usg=AOvVaw2Bdd5rNlrZvZ_--1pwj0Eb)
- Bartels, P., Bergh, T., Bothma, J. du P., Bothma, M.D., Breedlove, B., Burger, W.P., Viljoen, P.J. (2016). *Game Ranch Management* (6th ed.). (J du P Bothma & JG du Toit, Eds.). Braamfontein: Van Schaik publishers.
- Brown, C. (2017). The role of hunting through the eyes of a non-hunting conservationist. *Huntinamibia*, pp. 54-58.
- Brown, C. (2017). Hunting and tourism can work together for conservation: the Namibian experience. IUCN Commission on Environmental, Economic and Social. Retrieved from <https://www.iucn.org/commissions/commission-environmental-economic-and-social-policy/our-work/specialist-group-sustainable-use-and-livelihoods-suli/newsletters-sulinews/sulinews-11-august-2017/hunting-and-tourism-can-work>

- Brown, L. H. (2009). The economic impact of climate change on commercial agriculture in Namibia. *Ministry of Environment and Tourism. Windhoek, Namibia*. Retrieved from [www.the-eis.com/data/literature/Economic%20impact%20of%20climate%20change%20on%20commercial%20farming%20in%20Namibia.pdf](http://www.the-eis.com/data/literature/Economic%20impact%20of%20climate%20change%20on%20commercial%20farming%20in%20Namibia.pdf)
- Child, B., Suich, H. (2012). *Evolution and innovation in wildlife conservation: parks and game ranches to transfrontier conservation areas*. Earthscan. Retrieved from [https://books.google.com.na/books?hl=de&lr=&id=zwBk0OuyK4C&oi=fnd&pg=PR5&dq=Evolution+and+Innovation+in+Wildlife+Conservation:+Parks+and+Game+Ranches+to+...+von+Helen+Suich,Brian+Child,Anna+Spenceley&ots=whbp5cinm&sig=tRSqBlc2449zJwCnesF6wdQ35cA&redir\\_esc=y#v=onepage&q=Evolution%20and%20Innovation%20in%20Wildlife%20Conservation%3A%20Parks%20and%20Game%20Ranches%20to%20...%20von%20Helen%20Suich%2CBrian%20Child%2CAnna%20Spenceley&f=false](https://books.google.com.na/books?hl=de&lr=&id=zwBk0OuyK4C&oi=fnd&pg=PR5&dq=Evolution+and+Innovation+in+Wildlife+Conservation:+Parks+and+Game+Ranches+to+...+von+Helen+Suich,Brian+Child,Anna+Spenceley&ots=whbp5cinm&sig=tRSqBlc2449zJwCnesF6wdQ35cA&redir_esc=y#v=onepage&q=Evolution%20and%20Innovation%20in%20Wildlife%20Conservation%3A%20Parks%20and%20Game%20Ranches%20to%20...%20von%20Helen%20Suich%2CBrian%20Child%2CAnna%20Spenceley&f=false)
- Claasen, C., Descubes, I., & McNamara, T. (2016). Discourse and ethics in a controversial industry: Trophy hunting in Namibia. Retrieved from [https://www.researchgate.net/publication/290391038\\_Deleted\\_Title](https://www.researchgate.net/publication/290391038_Deleted_Title)
- Coomber, R. (n.d.). *The Namibian Bow Hunting Manual – IBEP*. National Bowhunter education foundation.
- Eagle Rock Hunting School. (n.d.) *About us*. Retrieved from <http://www.erphan.org/aboutus.html>
- Etter, H. (2004). The Economics of Bush Encroachment Estimating the benefits of Savanna rehabilitation in Namibia. *Managing Prosopis Juliflora for better (agro-) pastoral Livelihoods in the Horn of Africa*, 104. Retrieved from [https://www.researchgate.net/profile/Mohammed\\_Seid5/publication/279804213\\_6\\_Livelihood\\_Diversification\\_Option\\_and\\_its\\_Determinant/links/559b17c708ae5d8f3937fc64.pdf#page=105](https://www.researchgate.net/profile/Mohammed_Seid5/publication/279804213_6_Livelihood_Diversification_Option_and_its_Determinant/links/559b17c708ae5d8f3937fc64.pdf#page=105)
- Hess, K. A., Becker, K. J., Weck, U. H., Wipplinger, O., Dierks, K., Lilienthal, A., ... Grellmann, V. (2002). *Vom Schutzgebiet bis Namibia 2000*. Göttingen; Windhoek, Namibia: Klaus Hess Verlag.
- Lindsey, P. A., Roulet, P. A., & Romanach, S. S. (2007). Economic and conservation significance of the trophy hunting industry in sub-Saharan Africa. *Biological conservation*, 134(4), 455-469. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0006320706003831>
- McNamara, T., Descubes, I., & Claasen, C. (2016). Trophy Hunting in Namibia: A Case of an Unethical Image that is Unjustified? Retrieved from [https://www.researchgate.net/publication/290391154\\_Deleted\\_Title](https://www.researchgate.net/publication/290391154_Deleted_Title)
- Middleton, A., Stuart-Hill, G., Hamunyela, E., & Lindeque, P. (2017). Following the Big Conservations, what future for Conservation. *Huntinamibia*. pp. 60-63.
- NACSO (2015). The state of community conservation in Namibia – a review of communal conservancies, community forests and other CBNRM initiatives. *2015 Annual Report*. NACSO, Windhoek.
- Naidoo, R., Weaver, L. C., Diggle, R. W., Matongo, G., Stuart-Hill, G., & Thouless, C. (2016). Complementary benefits of tourism and hunting to communal conservancies in Namibia. *Conservation Biology*, 30(3), 628-638. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/cobi.12643/full>
- NAPHA, (2016). Position paper on the Importance of Hunting towards Conservation: Namibia Professional Hunting Association.
- Niekerk, v. C. G., Böttger H. W. P. (1990). *Manual for Trophy Hunting (2nd ed.)*. Directorate: Wildlife, Conservation and Research.
- Novelli, M., Barnes, J. I., & Humavindu, M. (2006). The other side of the ecotourism coin: consumptive tourism in Southern Africa. *Journal of Ecotourism*, 5(1-2), 62-79. Retrieved from [https://sites.google.com/a/responsiblelive.org/www/jHumavindu\\_2006.pdf](https://sites.google.com/a/responsiblelive.org/www/jHumavindu_2006.pdf)
- Reynolds, P. C., & Braithwaite, D. (2001). Towards a conceptual framework for wildlife tourism. *Tourism management*, 22(1), 31-42. Retrieved from <https://tourismtwohundred.files.wordpress.com/2014/02/wildlife-tourism-analysis.pdf>

Thomson, R. (2006). *Managing our Wildlife Heritage*. Hartebeespoort: Margon publishers.

Uys, G. (2017). Economic & ecological benefits of hunting in Namibia. *Farmer's Weekly*, 2017(17021), 34-35. Retrieved from <https://www.farmersweekly.co.za/animals/game-and-wildlife/economic-ecological-benefits-hunting-namibia/>

Vaatz, J. (2012). Trophäenjagd hatte schwierigen Start Teil 2/2. *Allgemeine Zeitung*. Retrieved from <https://www.az.com.na/nachrichten/trophenjagd-hatte-schwierigen-start-teil-2-2>