SA Jagters- en Wildbewaringsvereniging SA Hunters and Game Conservation Association

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Suid-Afrika se Grootste Bewaringsorganisasie - gefokus op Bewaring deur Volhoubare Benutting South Africa's Largest Conservation Organisation - focussed on Conservation Through Sustainable Use

POTENTIAL RISKS AND COLLATERAL DAMAGE THAT THE SHOOTING OF INTENSIVELY AND SELECTIVELY BRED GAME, INCLUDING CAPTIVE-BRED LIONS, MAY HAVE ON THE CONTRIBUTION BY THE HUNTING SECTOR TO THE BIODIVERSITY ECONOMY

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1 INTRODUCTION

As the oldest and biggest hunting and conservation association in South Africa, the South African Hunters and Game Conservation Association has a responsibility to provide leadership within the wildlife sector when it comes to responsible wildlife utilisation and conservation of South Africa's rich wildlife heritage. With the increase in scale of intensive and selective breeding of game for the purposes of producing exceptional hunting trophies, and the mounting criticism from various sectors on "perceived" irresponsible hunting practices, including the hunting of captive bred lions, SA Hunters conducted a study to better understand the potential risks and collateral damage that the shooting of intensively- and selectively-bred game, including captive bred lions, may have on conservation and the broader wildlife economy in South Africa. This report is a summary of the findings of the study.

2 PURPOSE

The purpose of the study was to determine:

- if shooting of intensively- and selectively-bred game is perceived negatively by important stakeholders in the hunting sector;
- if it poses a broader reputational risk to hunting and other sectors of the South African wildlife industry;
- if there is a demand for purposely-bred game by trophy hunters;
- whether or not reputational damage resulting from shooting of intensively- and selectively-bred game could undermine the economic and conservation contributions of the hunting industry; and
- if the absence of mechanisms to communicate credible market information on the conservation contribution of game populations and hunting activities can compound the reputational risks to responsible hunting and game ranching.

Results of the study were intended to provide a basis for informed decision-making on the policy positions of SA Hunters and where possible, influence the wildlife sector, government and other relevant role-players of potential risks associated with the practice.

3 APPROACH

An integrated approach was followed considering relevant social, economic and environmental aspects to determine if there is reasonable cause for concern by both the hunting sector and the broader wildlife economy role-players when the country's indigenous game species are intensively and purposely bred for the purpose of producing extra-ordinary hunting trophies in conditions similar to agricultural production systems. Data and information were sourced from the South African legislative framework, relevant research, authoritative economic and business studies and reports, trends and economic reviews expressed by experts and published in the popular media, expert opinions, and other relevant recent information.

At the onset, it is noted that this study was not intended to be either a comprehensive research study, literature review or a full evidence-based assessment. Very few formal research publications are available on the extent of socio-economic impacts of intensive and selective breeding of game or the impacts thereof on other sub-sectors of the biodiversity economy, including hunting. Some aspects are still developing. The study was not an attempt to provide an in-depth cost-benefit analysis of all social, economic and environmental factors and their interplay in the wildlife sector, or to assess the extent of all potential risks and associated impacts.

4 HUNTING AS A DRIVER IN THE WILDLIFE ECONOMY

In developing countries like South Africa (SA), many people are faced with poverty, unemployment and degraded environments. There is a desperate need for rapid social and economic development to achieve our development goals. While this often requires complex trade-offs between economic, social and environmental objectives, research has demonstrated that all three of these objectives can be achieved simultaneously through wildlife-based tourism.

Wildlife-based tourism, including hunting, is an ideal industry to grow the economy in developing countries with natural resource abundance and limited capital (Viljoen 2011). Hunting is part of wildlife-based tourism that represents 20% of the total international tourism market that generated 9% in global GDP in 2011. Wildlife-based tourism is reported to be growing three times faster than the tourism industry in total, and at a reported growth rate of 10% per annum. In SA, the wildlife sector, excluding photographic tourism, is growing at a similar rate of 9%, which is much higher than that of the general economy. Hunting is one of the biggest contributors to this sector.

The hunting sector in SA consist of about 300 000 hunters, of which 75 000 belong to 28 accredited associations. SA Hunters is the biggest single association with more than 43 000 members. Hunting can be divided into trophy hunting and meat hunting. In SA, trophy hunting is primarily practised by international hunting tourists that may want to take home a trophy as memorabilia of their hunting experience. Meat or consumptive hunting, often also referred to as biltong hunting, is primarily a practice by SA citizens that hunt game as an alternative protein source. Trophy and meat hunters contributed R1.9 and R8.6 billion respectively to the economy in the 2015-2016 hunting season (TREES 2017), with trophy hunting also contributing towards addressing our trade deficits.

Hunting primarily occurs in rural and remote areas, which provides an economic injection to communities that are home to many unskilled and unemployed people. Three of the most rural and poverty-stricken provinces in SA, namely Limpopo, North West and Eastern Cape are prime hunting destinations that generates employment for the unskilled workforce where other viable land-use options and economic opportunities are often limited. The financial

Hunting is an important driver in growing the wildlife economy that outperforms the national economy and provide viable socio-economic development opportunities in rural economies, especially in dry-land ecosystems.

rewards for wildlife management in dryland ecosystems that stretch over vast areas of SA, are approximately three to four times higher than for domestic stock farming (R220/ha vs R80/ha). Compared to typical agriculture, wildlife-based enterprises employ three times more staff. An approach that promotes hunting as a prominent economic driver in wildlife-based rural economies will not only assist in addressing challenges of poverty, food security and livelihoods in rural communities, but will further reduce environmental vulnerability of these resource-dependent communities.

5 LEGISLATIVE FRAMEWORK

The people of South Africa appointed the Government as trustee of the country's wildlife heritage according to the Constitution of the Republic of South Africa, 1996. According to section 28 in the Bill of Rights within the Constitution, everyone has the right-

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that-
 - (i) prevent pollution and ecological degradation;
 - (ii) promote conservation; and
 - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

The Environmental Right provides the foundation for the environmental law in South Africa and in particular the National Environmental Management Act 107 of 1998 (NEMA) and National Environmental Management Biodiversity Act 10 of 2004 (NEMBA).

NEMA specifies a number of environmental management principles that all organs of state are bound to apply when making decisions concerning the environment. It however also empowers the public to hold the government accountable for the correct and timely application of sound environmental management principles.

Not all relevant aspects will be discussed in the report, but it is critical to understand that decision-making by government must strive to achieve a reasonable balance between satisfying people's current needs and ensuring that sufficient biodiversity resources remain to provide for future generations and their needs (Weiss 1992). A person or a select group of people cannot enjoy rights that may prejudice other people's rights to fair enjoyment of that resource and therefore purposefully places a constraint on a person's perceived right to use biodiversity (Blackmore 2015).

Furthermore, NEMA requires a risk-averse and cautious approach when taking decisions when current knowledge about the consequences of decisions and actions are limiting. The purpose of this principle is to anticipate and prevent environmental harm when there is a significant degree of uncertainty regarding the potential impact on biodiversity (Trouwborst 2006) or absence of clear evidence of, or investigation into, its impacts (Cooney 2004). When considering potential impacts, NEMA and the legislative framework of South Africa further require that not only impacts on biodiversity are considered, but that cumulative social and economic impacts are also taken into account when decisions are made on allocating resource use or development rights.

Given the legislative framework of South Africa, its citizens have a right to have their wildlife protected, but they also have a right to use it in a responsible way. The right to use, may however not prejudice other's rights (including future generations') to use that same resource. Therefore, Government, as trustee, must ensure that the practices of individuals and organisations that have an impact on the environment, are sustainable from an economic, social and environmental perspective.

6 PERCEPTION MANAGEMENT

People's perceptions about an enterprise's performance on social, economic and environmental responsibility are critical in earning and maintaining a social licence to operate (IoDSA 2009a; De la Paix and Eugène-Rigot 2017). This is especially important for the future of hunting in South Africa that is coming under increased scrutiny (IUCN 2016).

Eccles et al. (2007) provides the following insights on perceptions and their link to reputational management in Harvard Business Review:

- Reputation is a matter of perception and is separate from the actual character or behaviour of an enterprise.
 It is determined by how stakeholders view an enterprise and its activities, and this ultimately impacts on the sustainability of the enterprise. (Example, the perception of hunters and the general public (consumers and stakeholders in the utilisation of wildlife), about the hunting of intensive and selectively bred game, is critical to the sustainability of the "business" of intensive and selective breeding of game.)
- The reputation of an enterprise is also affected by the reputation of other role-players in its industry and the
 relative reputation of the industry overall. (Example, the perceptions of the public about the wildlife sector in
 South Africa and hunting in general, are influenced by the perceptions of the public about canned hunting of
 lion or trophy hunting in South Africa, as well as their perceptions of intensive lion breeding practices because
 it all forms part of the full value chain in the wildlife sector.)
- Changing stakeholder expectation and views is an important source of reputational risk because previously
 acceptable practices may not be considered acceptable or ethical in changing environments. (Example, the
 perception about acceptable wildlife utilisation practices may change as wildlife resources become scarce.)

These principles are in line with the United Nations Sustainable Development Goals that provide a framework for business' role in sustainable development and deals with economic efficiency, social responsibility and environmental sustainability (UN 2017).

Adhering to these principles should not be seen negatively, because considering economic, environmental and social aspects in an integrated approach helps enterprises to address the risks associated with impacts and the dependencies associated with the utilisation of natural resources and sustainability of the enterprise (Brundtland Commission 1987; IoDSA 2009a, b; De la Paix and Eugène-Rigot 2017). It helps enterprises become more resilient to the risks of climate change and to negative information about the enterprise and associated practices (Bhattacharya and Sen 2004).

The wildlife industry, its sub-sectors and wildlife-based enterprises cannot separate their activities to generate profits or their contribution to the economy, from the impact those activities have on the environment and other role-players in the value chain, wildlife sector, or the public.

7 REQUIREMENTS FOR SUSTAINABLE HUNTING

In order to assess the risks posed by intensive and selective breeding to the sustainability of the hunting sector, it is important to understand the sustainability requirements for the hunting sector. People are becoming increasingly aware of the threats to the environment, including over- and irresponsible use of natural resources. There is increasing pressure on all forms of tourism to become more sustainable (APO 2009; Dodds *et al.* 2010; UN 2012; Blue & Green Tomorrow 2014). Sustainability here refers to resilience over time and the ability to generate income and benefits without significant deterioration of the environment and natural resources, whilst also addressing social responsibility (Brundtland Commission 1987; IoDSA 2009; De la Paix and Eugène-Rigot 2017; WebFinance 2017; Financial Times Undated). This is especially important for the future of hunting as part of wildlife-based tourism that is coming under increased scrutiny globally (IUCN 2016).

The King III and King IV reports that deal with corporate citizenship and good governance of entities, regardless of the manner and form of incorporation or establishment and whether in the public, private or non-profit sectors, imply an ethical relationship of responsibility between organisations and the society in which it operates (IoDSA 2009a). The practice notes on the King reports state that organisations should identify and assess direct and indirect environmental impacts together with financial and social risks, in a manner that goes beyond compliance and from both an ethical and a business opportunity perspective (IoDSA 2009b). It continues to note that corporate citizens not only have rights and associated legal and moral obligations with respect to the economic, social and natural environments within which they operate, but also sustainability obligations to protect and enhance the well-being of these environments (IoDSA 2009a, b).

There is a substantial literature base from both the business and environmental sectors that provides guidelines to the hunting sector to improve sustainability and social responsibility. A number of initiatives have been launched within the hunting fraternity, including the development of a code for ethical and responsible sport hunting as early as 1997 for Africa by an informal body of stakeholders comprising governments, rural communities, professional and sport hunters, conservation NGOs and academics/researchers (Figure 1) (DeGeorges and Reilly 2008).

Other internationally accepted codes of conduct and charters that provide guidelines, principles, criteria and indicators to guide the management of hunting practices include the European Charter on Hunting and Biodiversity adopted under the Bern Convention on the Conservation of European Wildlife and Natural Habitats (Brainerd 2007); the IUCN SSC Guiding Principles for Trophy Hunting as a Tool for Conservation Incentives (IUCN/SSC 2012); the Sustainable Hunting Tourism scheme by the International Council for Game and Wildlife Conservation (CIC) (Damn 2008); with the latest development relevant to Africa, i.e. the Charter for Conservation, Habitat Protection and Hunting in Africa (MET 2017). The latter is supported by several countries in Africa. However, South Africa is still in a process of consultation with the wildlife sector on its response to the Charter.

Some of the criteria for hunting to be sustainable and socially responsible, taken from these codes and charters, include that hunting must:

- be biologically sustainable;
- not substantially alter processes of natural selection and ecosystem function;

- maintain wild populations of indigenous species with adaptive gene pools;
- not contribute to substantially manipulating ecosystems or their component elements in ways that are incompatible with the objective of supporting the full range of native biodiversity;
- ensure a net conservation benefit for wildlife habitat on which the cost of management and conservation of biological resources are internalized within the area of management;
- generate benefits for retention, enhancement or rehabilitation of habitats; and
- adopt business practices that promote long-term economic sustainability.

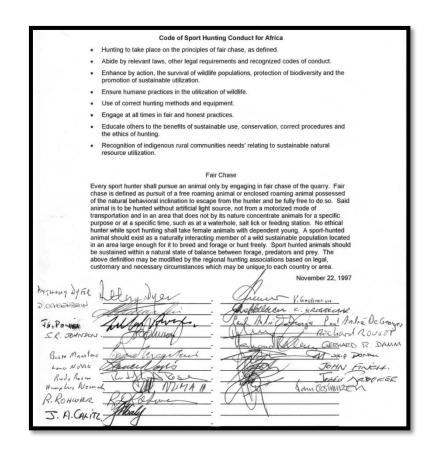


Figure1: Code of conduct for sport hunting in Africa developed in 1997.

The shooting of animals released from intensive breeding facilities and those manipulated to purposely produce exceptional trophy animals, appears to be incompatible with several of the above-mentioned requirements for hunting to be ecologically and socially responsible. The sustainability of hunting and the hunting sector depend on how source populations are managed and how hunting practices are being seen as economically sound, socially responsible and ecologically sustainable.

8 CANNED AND CAPTIVE-BRED/TAME "HUNTING"

In order to understand people's perceptions about various types of hunting, it is important to note that the following phrases, "canned", "captive-bred", "small camps", "tame", "artificial", "put-and-take" and "manipulated" are used interchangeably in popular articles, scientific reports and media statements. It is clear that the conditions under

which animals are bred and hunted play an important role in the public's attitudes towards hunting (Cooney et al. 2017, Gamborg and Jensen 2017).

Irrespective of the term used and the legality of the practice or not, an attempt will be made to evaluate if stakeholder perceptions differ between "canned" hunting and hunting of game that have been bred in controlled environments (known as captive-bred in the lion breeding industry) that are typically associated with breeding operations where game is intensively manipulated and not viewed as "wild".

Since the release of the "Cook Report" by the BBC in 1997, exposing how a wealthy client shot a drugged lion (Mail and Guardian 1998), the term "canned hunting" became popular. Although lion hunting in South Africa is legal, "put-and-take" hunting and hunting of intensively bred lions have been the subject of extensive public criticism since the release of the "Cook Report".

As early as 2006, the National Agricultural Marketing Council (NAMC), a statutory and advisory body for the Minister of Agriculture and Land Affairs, produced a report on opportunities and challenges relating to the sustainable development of South Africa's wildlife ranching fraternity (NAMC 2006). Organisations representing the full wildlife ranching value chain, including hunters, wildlife ranchers, the game meat sector and tourism, together with relevant government departments, reported that "wildlife which is hunted and the land where the hunt takes place, have to allow for the wild character of game (not tame); that fair chase hunting makes a positive economic and conservation contribution; and that "canned" and "put-and-take" shooting severely damages the reputation of hunting and its sustainability into the future (NAMC 2006).

Irrespective of the practice being legal, it was not perceived as socially acceptable and met with increased public criticism, including from reputable hunting organisations (OPHAA 2017a; WSF 2017; ZPHGA 2017). Canned and trophy hunting in general came under increased scrutiny with several cases of poorly conducted and regulated hunting being exposed in the media (IUCN 2016).

The reputational risk associated with perceived irresponsible hunting and breeding practices has more recently been demonstrated by captive-bred lion hunting. The video "Blood Lions: Bred for the Bullet", exposed practices associated with the intensive breeding of lions for hunting in South Africa. The phrase "bred for the bullet" expresses the negative attitudes towards hunting of animals that are purposely bred to be shot.

After the release of the video, the local and international media were rife with articles on so-called "questionable practices" associated with the captive-bred lion industry that ranged from petting facilities and predator parks, to intensively breeding lions to be shot.

In a single day on 16 March 2015, the following comments were reported in the media expressing some of the sentiments:

- "Hunters prefer the term 'captive' to canned. However, Ian Michler, a South African investigative writer, safari operator, conservationist and outspoken critic of trophy hunting says the word 'captive' is as it reads, lions are being bred in captivity to be killed" (Borchert 2015).
- "Canned hunting is unethical and cruel. The people of Australia want this practice stopped. Canned hunts
 offer an easy and sure kill because the odds are stacked in favour of the hunter" Australian High
 Commissioner to Kenya (Kenya 2015).
- "The Professional Hunting Association of South Africa had only itself to blame. Instead of coming down hard on canned hunting outfits, their silence has been a tacit approval" (Borchert 2015).

The initial notion of "canned" hunting as framed in the Cook Report in 1997, involved the "callous execution of tranquilized lions" or "shooting lions in small camps" (SAPA 2017b). As one of the first associations in South Africa that represents the intensive game breeding sector (in this case predators), the South African Predators Association (SAPA) responded after the release of *Blood Lions* that the narrow definition of "canned" hunting has changed in the public mind as referring to all hunting of intensive/captive-bred lions (SAPA 2017b). Irrespective of "canned" hunting being illegal and hunting of "intensively bred" lions being legal in South Africa, these events resulted in growing negative perceptions from the public about hunting of both "canned" or "captive-bred" lions (SAPA 2015).

This notion from the lion breeders is supported by the Australian Government's website that follows the same interpretation. "Canned" hunting is defined as an unfair hunt that includes hunting game that is drugged and fenced in enclosures from where they cannot escape, hunting of game that have been raised by people (tame hunting), and those disoriented that have recently been put in a new environment (Australian Government 2015).

The same sentiments are reflected in the position statements of various hunting and conservation organisations (Table 2 and 3, Appendix 1), and two motions that relate to intensive and selective breeding of game, passed at the IUCN World Conservation Congress of 2016 (IUCN 2016). The first motion on lions used the terminology to terminate the practice of breeding lions in captivity for the purpose of "canned" hunting and legally prohibit the hunting of "captive-bred" lions under any conditions.

IUCN WCC 2016 voting results confirm that 72 countries and 409 national and international non-governmental organisations, perceived both "canned" and "captive-bred" hunting as undesirable hunting practices.

In the IUCN motion on intensive and selective breeding of game, phrases such as "deliberate manipulation of the breeding process" and "selective breeding and intensification of management may ultimately increase domestication", highlight that for at least 99 governments and 424 NGOs, there is a view that game that have been intensive and selectively bred may become increasingly "tame" (i.e. not wild) (IUCN 2016). This would undermine the fair chase foundation of hunting game. Results from the voting process are indicated in Figure 2 and 3.

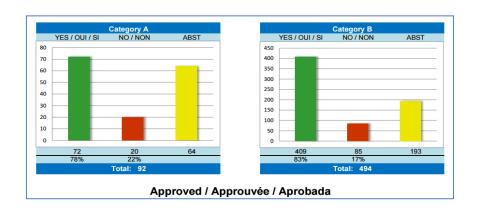


Figure 2: Results of the voting at the IUCN World Conservation Congress of 2016 on the motion to terminate hunting of captive-bred lions and other predators and captive breeding for commercial, non-conservation purposes.

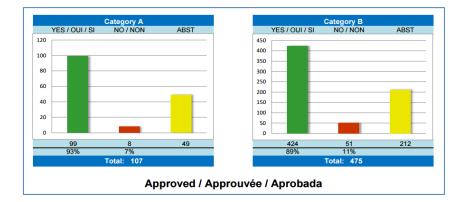


Figure 3: Results of the voting at the IUCN World Conservation Congress of 2016 on the motion for management and regulation of selective and intensive breeding of large wild mammals for commercial purposes (Category A is government members; Category B is all members).

Shooting intensively bred game undermines the fair chase foundations of responsible hunting of game, which most local and international hunting organisations endorse. Although definitions of 'fair chase' vary slightly, this principle highlights aspects such as wildness and the ability of the animal hunted, to be able to evade the hunter. This relates to the conditions under which animals are bred and then hunted. In line with the theory of reputational management, the latter plays an important role in the public's attitudes towards hunting in general.

9 REPUTATIONAL RISKS TO WILDLIFE-BASED TOURISM RESULTING FROM SHOOTING INTENSIVELY AND SELECTIVELY BRED GAME

9.1 Perception about the captive-bred lion sector affecting other sub-sectors of wildlife-based tourism Following on the principle discussed above that the reputation of an entire value chain can be affected by the perceptions about one of the stakeholders and their activities in the value chain (Eccles et al. 2007), the implications of negative perceptions about shooting of captive-bred lions will be discussed as a case study to gain better insights into the reputational risks for the entire hunting value chain associated with shooting of intensively and selectively bred game, including colour variants. It is acknowledged that lion is an iconic species that is threatened over large parts of its range, albeit not in South Africa, and that the intensity of responses resulting from negative perceptions about intensive breeding of lion for shooting and associated welfare and other impacts, may differ from that of other game species.

Easy access to information - including social media - enables consumers to evaluate corporate, environmental and social performance of enterprises, including sub-sectors of the wildlife industry. This was evident by the public responses related to shooting of intensive or captive-bred lions. After Ian Michler from South Africa, that played a lead role in the filming of the movie *Blood Lions*, met with the Australian Environment Minister and other ministers

¹ Members in Category A (States and government agencies) and Category B (National and international NGOs)

of parliament in October 2014, the Minister was quoted criticizing purposeful breeding for hunting, stating that "it is about raising the most majestic of creatures for a singular purpose and that is to kill them, to shoot them for pleasure and for profit" (Milman 2015). This started a global movement that criticized trophy hunting and tried to end perceived irresponsible hunting practices, including canned and captive-bred hunting.

Negative perceptions about hunting further escalated after the shooting of Cecil, a black maned lion that was a well-known tourism attraction in Zimbabwe. It was initially erroneously reported that it had been an illegal hunt and that the lion had allegedly been lured out of a sanctuary and then shot and wounded with an arrow (Baldus 2016). Although Cecil's hunter was exonerated by the Zimbabwean government of any wrongdoing, the incident was used by anti-hunters to denigrate hunting in all of Africa (Baldus 2016). The impacts reached far beyond the individual occurrence of the specific incident and the specific species. This was confirmed by the Zimbabwe Professional Hunters & Guides Association (ZPHGA) that experienced first-hand the implications of world perception and influence following the Cecil incident. The Association realised how actions of hunters had ramifications stretching from Zimbabwe to Alaska (ZPHGA 2017).

The release of the *Blood Lions* video shortly after the Cecil incident, exacerbated the growing negative perceptions about trophy hunting and expanded into breeding game for the sole purpose to be shot. The campaign highlighted that the "breeding of animals to be killed for fun or to be used and abused in tourism, has no place in a progressive and responsible society" and to "end the scourge of predator breeding, canned hunting and other forms of cruel and needless exploitation of wild animals" (Blood Lions 2016).

The scope of the *Blood Lions* campaign as reflected in Table 1 (Appendix 1), demonstrates the risks associated with the intensive breeding of game purely for shooting and how animal rights groups can use specific activities and incidents to change perceptions of society about hunting, inflicting reputational damage to hunting in general and other forms of wildlife-based tourism. Media reports about the personal threats to Walter Palmer, the dentist that shot Cecil, confirms the personal risks for hunters being tainted by accusations, whether they are well-founded or not, that they participated in hunts that are not perceived as responsible.

It is not only animal rights groups that have expressed negative perceptions about shooting intensively bred game. The minister of tourism, Mr Derek Hanekom, highlighted the reputational risks to hunting in general, when hunters are associated with the shooting of intensively bred lions in 2014 during PHASA's annual congress and again in *Blood Lions* (Brophy 2015; Genever 2016). It has also been reported in the local and international media that Colin Bell, member of the South African Tourism Board, questioned whether a few hundred lion breeders should be allowed to tarnish the international reputation of Brand South Africa (Polley 2014). According to a recent article about a major hotel group that continues to promote lion walks, the CEO of South African Tourism, Sisa Ntshona was quoted as indicating "awareness of the devastating impact of canned lion hunting and animal petting will encourage the industry to stop promoting such practices" (Steyn 2018).

A social media content analysis that considered 1 600 "mentions" on hunting in South Africa as part of a bigger sample of 7 000 over a one month period that coincided with CITES at the end of 2016, indicated that there is a very strong negative connotation between trophy hunting and the captive breeding of game (especially lion), that is viewed as cruel, greedy and corrupt (Botha and Antonites 2016).

Following the release of Blood Lions and the massive public backlash after the Cecil incident, it was reported that trophy hunting as a form of pro-conservation sustainable utilisation was losing its legitimacy (Botha and Antonites 2016). This is aligned with the theory that the reputation of an enterprise is also a function of others' reputations in its industry and the relative reputation of the industry overall and vice versa.

9.2 Positions of prominent local, African and international hunting organisations on shooting of intensively and selectively bred game.

The "prominence" and overview of the positions of various organisations reflected in Table 2 and 3 (Appendix 1) will be discussed briefly with some additional background information.

9.2.1 Policy positions of local organisations

Any consumer market has different consumer preferences. For almost twenty years, lions from intensive and selective breeding facilities in South Africa have been hunted by members of PHASA, the biggest association representing the professional hunting sector in South Africa. The majority of the approximately 638 lions hunted in South Africa in 2015, were from captive-bred lion breeding facilities (DEA 2016).

Early in 2015, when PHASA was not openly distancing itself from the practice of canned or captive-bred hunting, a group of eight of South Africa's largest and most experienced professional hunting operators that were members of PHASA, published an official statement indicating that there is "no meaningful distinction between the terms "canned" or "captive-bred" lion (SAMPEO 2015). They further stated that they "condemn the immoral practice of canned/captive-bred lion shooting, where lions are bred for the sole purpose of being killed by paying clients" and that it "play no meaningful contribution to wildlife conservation, financial or otherwise that aids the species in its natural state."

With mounting public pressure against the shooting of captive-bred lion, PHASA distanced itself from the practice in November 2015 (PHASA 2015). Even though hunting captive-bred lions in South Africa is legal, it was stated in a press release by PHASA in January 2016 that "to the great majority of professional hunters and their clients, this practice is in fact the industry's Achilles heel" and that PHASA's international peer organisations as well as many of its members' clients had expressed their relief that PHASA had distanced itself from the practice (PHASA 2016). As far as the position on shooting of intensively bred colour variant antelope species is concerned, PHASA (2016) reported that it do not see any substantive demand for trophies of colour variants even though a number of websites offered hunting packages for colour variants. No reliable data could be sourced indicating the extent of demand for trophies of colour variants as part of this study.

A small number of trophies for colour variants have previously been recorded in the Roland Ward Trophy Book (Roland Ward 2017). These were naturally occurring animals and Roland Ward "will not accept animals that are specifically bred with the goal to establish a separate colour-based category for trophy hunting." It will also not accept hybrid animals except where such animals have a natural hybridization zone in a completely free range, such as the Armenian mouflon and the Transcaspian urial (Roland Ward 2017).

Similarly, entries of hunting trophies to the Safari Club International Record Book will only be based on scientific evidence that the entry represents a valid taxonomic species or grouping of related sub-species and not simply a hybrid, a colour variant, or genetic mutation of an existing species. The SCI Record Book committee does not support procedures or practices with wildlife that produce non-typical colour variants, horns, antlers or body size and discourages breeding practices that genetically manipulate wildlife species to alter appearance or size (Boretsky 2015).

The Nordic Safari Club, representing the second biggest trophy hunting market of South Africa, has also removed all South African lion trophies from its record books and banned all advertisements from operators offering canned hunts in its magazine or any editorial material relating to the practice (NSC 2017). Since 2016, Germany's leading hunting show has instituted a moratorium on advertising or selling of canned or captive-bred hunts and species bred as colour variations (Jagd and Hound 2016).

Prominent international hunting trophy Record Books would not enter trophies of animals that have been purposely manipulated or intensively bred into its record books.

Despite the warnings from several hunting organisations worldwide, including the CIC² and 17 USA based hunting associations, about the reputational risks of supporting the practice of captive bred lion shooting (CPHC 2017), PHASA's members voted in favour of the following resolution in 2017: "PHASA accepts the responsible hunting of ranched lions on SAPA accredited hunting ranches within the relevant legal framework and/or according to recommendations of the applicable hunting association, such as SCI's fair chase standards" (PHASA 2017a, b). This decision was met with substantial negative responses from within the hunting fraternity worldwide and further lead to the resignation of several long-standing PHASA members, including seven past presidents, and the establishment of a new organisation that represents professional hunting, namely the Custodians of Professional Hunting and Conservation in South Africa (CPHC) (Bloch 2017).

In 2014, SA Hunters and Game Conservation Association (SAHGCA), which is by far the biggest hunting association representing more than 43 000 consumptive hunters in South Africa, distanced itself emphatically from hunting of game that have been intensively or selectively bred for the purposes of hunting. Members of SAHGCA also include other interest groups such as wildlife ranchers and conservationists. However, the first objections to canned hunting was tabled to the Director General of Environmental Affairs as early as 1987.³ SAHGCA believes that the hunting of intensively or selectively bred game goes against the spirit of responsible hunting; has negative conservation implications; and hold significant risks for the entire wildlife sector (SAHGCA 2014).

In 2016, CHASA that represents approximately 23 smaller local hunting associations predominantly representing meat hunters, indicated that the wildlife industry was underpinned by fair-chase hunting, but argued that where fair-chase hunting principles are not applied, game hunted should be for personal or consumptive use and be seen as harvesting or game management hunts only. They did not support the hunting of animals that were not habituated to their territory and indicated that they will condemn any breeding practice where proper scientific evidence indicates that it could be harmful to existing wildlife meta-populations and/or biodiversity. However, in 2017, after PHASA had changed its policy position on the shooting of captive-bred lion, CHASA announced that they supported the shooting of captive-bred lion and urged its members which hunt captive-bred lions, to ensure that their hunts are conducted in accordance with the SAPA Norms & Standards, and preferably on a farm accredited by SAPA (CHASA 2017b, a).

Table 3 (Appendix 1) shows a summary of position statements of organisations representing game farming, breeding, management, and prominent conservation organisations that have participated in the debate on intensive and selective breeding of game for commercial purposes.

As far as local demand for shooting of captive-bred game is concerned, a recent study by North West University revealed that the majority (81%) of local meat hunters in the survey have not hunted colour variants. Those hunters that have shot colour variants, indicated it was for meat purposes and because animals were available at a good price, not for trophies (TREES 2017). A former president of PHASA, stated that there is a growing perception amongst hunters in South Africa and around the world, that hunting in South Africa is becoming "tame" and that

² CIC presents 26 USA State Members, a wide range of organisations engaged in hunting and conservation, as well as individuals such as private members and scientific experts from 86 countries around the world, http://www.cic-wildlife.org/

³ Organisational minutes and records of CHASA from 1987.

many animals offered to hunters are viewed as farmed animals that are accustomed to human interaction (Dorrington 2015; Flack, pers. comm. 2016). Dorrington (2015) indicated further that the majority of hunters do not want "tame" hunting.

The above-mentioned notion is in sharp contrast to game breeders that in recent years advocated in popular media and marketing materials that they manipulate game for exceptional trophies to supply in the demand from foreign trophy hunters (Van Rooyen 2012; Writer 2015) that flock to South Africa to hunt the grand slam of colour variants. In 2013, it was reported in the financial media that intensive and selective game breeding produced annual return on capital employed as high as 130% for black impala. It was said to outperform the JSE All Share Index (ALSI) of 26.68% and investment in property (typically 10%) (Slabbert 2013). At some point, more than 43% of game ranchers were involved in some form or another of intensive and selective breeding (Taylor et al. 2015).

Since the second half on 2016, economists and reporters started referring to an oversupply of colour variants and significant decreases in game prices in South Africa (Cloete 2016; Schoeman 2016; Van Rooyen 2017). Cloete, a prominent agricultural economist that regularly comments on economic trends for the wildlife ranching sector, stated that improved economic and climatic conditions are not likely to turnaround the decrease in prices as it is likely to be offset by a further growth in supply (Cloete 2016). By 2017, Cloete indicated that it was the first time in the history of this young industry that the breeding segment of the wildlife industry was facing uncharted territory in that "price pressure is being instigated from both the demand and supply side" (Cloete 2017). By 2018, prices for black impala ewes dropped from R610 000 in 2014 to R7 500 in 2018 (African Wildlife Auctions 2018) and some game breeders have opened the gates of their intensive breeding camps, offering hunting packages for black impala and those with regular colouring at the same price.

9.2.2 Policy positions of international organisations

Within Africa, eleven hunting organisations from nine countries where hunting takes place, including Botswana, Ethiopia, Mozambique, Namibia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe, expressed that they promote legal and ethical fair-chase sustainable hunting in Africa and condemn the artificial breeding of wild animals for the hunting industry (OPHAA 2017a). At the end of 2017, OPHAA suspended PHASA's membership after its policy had changed to conditionally support captive-bred lion hunting. OPHAA stated that the shooting of captive-bred lion brings the entire hunting industry in ill-repute and jeopardises conservation efforts and livelihoods generated by well-managed and ethical hunting operations (OPHAA 2017b).

Globally, all the major international hunting associations in North America and Europe have expressed concern that hunting selectively and captive-bred game is seen as "tame" and not "fair-chase" hunting (Table 3, Appendix 1). More than 93% of international hunters that visited South Africa in 2015 came from North America and Europe (DEA 2015). With PHASA reverting to support captive-bred lion shooting, some of the most prominent hunting organisations in Europe and America such as the Boone and Crockett Club, the Nordic Safari Club, the Wild Sheep Foundation and Dallas Safari Club distanced themselves from PHASA, condemning the decision and the practice of captive bred lion shooting and expelled PHASA as member or withdrew sponsorships (Table 2, Appendix 1). Additionally BookYourHunt.com also called off its sponsorship of PHASA in protest against approval of captive bred lion hunts (BookYourHunt 2017).

Negative perceptions associated with perceived irresponsible hunting practices also became front-page news with Cecil, which expanded to include shooting of intensively bred lions after the presentation of "*Blood Lions: Bred for the Bullet*" to the European Parliament in 2015. France responded by banning the importation of lion trophies in November 2015 (Nowak 2016). A proposal was also tabled to the European Parliament to examine the possibility of restricting all hunting trophy imports to persuade countries that are issuing permits to trophy hunters, to consider the impacts of trophy hunting on conservation and animal welfare (EU 2016). Although specific attention was given

to lions, policy changes were directed at other species and trophy hunting in general. PHASA and the South African government initiated interventions to stop the proposal from going through.

Table 1: Some of the countries that have implemented trade bans and restrictions

COUNTRY	BAN/RESTRICTIONS
France	Lions
Australia	Big five
Netherlands	All trophies
USA	Lions and others

In the US, in at least one of the instances of stricter domestic measures, it was specifically targeted at the hunting of captive-bred lions; a change in US policy toward the import of trophies specifically from South African captive-bred lions on the grounds that such hunting does not enhance the conservation of wild lion populations (USA 2016).

Mounting negative perceptions further lead to several commercial passenger and cargo airlines changing their policies to stop the transport of hunting trophies of several species of animals hunted in Africa, irrespective of the hunts being legal or within the provisions of international conventions such as CITES. These included amongst others, British Airways World Cargo and Iberia Cargo, Lufthansa (the sixth largest air cargo carrier in the world), Brussels Airlines, Singapore Airlines, Emirates Airlines (third largest air cargo carrier worldwide), Qantas Airways, Etihad and Qatar Airways Cargo (Bloch 2015; Cach 2015). Even South African Airways joined this cause, requiring the South African Government to intervene. Without airlines that are willing to transport hunting trophies, it will become increasingly difficult for international hunting tourists to export their trophies, with concomitant risks to the future of South Africa as preferred hunting destination in Africa. Within South Africa, the financial sector also responded to the captive breeding of game for hunting when Nedbank took a decision "not to finance any activity constituting captive breeding of mammalian predator species for hunting or the exotic pet trade" (Mosupi 2016).

At the 2016 CITES Conference of Parties a resolution was passed focussing specifically on hunting trophies (CITES 2016). However, several governments already implemented stricter domestic requirements than CITES for the importation of hunting trophies or have banned the importation of hunting trophies from African countries altogether (PHASA 2016; UK 2017).

The impact that these actual and proposed policy changes could have on conservation and rural livelihoods, was perceived as significant enough for two ex-secretary generals of CITES to draft a public response stating that 'these embargoes by airlines and marine shipping companies will ultimately prove damaging to wildlife and to the livelihoods of those in poor communities" (CITES 2015). The IUCN also responded by drafting an information document on the benefits of trophy hunting for European Union decision-makers to guide their decision-making in an attempt to offset the potential socio-economic impact that these trade restrictions could have on conservation and livelihoods of communities in affected countries (IUCN 2016).

The position statements of prominent hunting and conservation organisations worldwide on what constitutes responsible hunting and which activities pose reputational risks to hunting, indicate that neither put-and-take shooting or the shooting of intensive and selectively manipulated game are perceived as responsible or "ethical" hunting, irrespective of the size of the enclosure in which they are hunted.

10 IMPACTS OF REPUTATIONAL DAMAGE TO HUNTING

10.1 Drop in international visiting hunting tourists

As far as hunting tourism is concerned, 88% of hunting tourists in Africa were hunting in South Africa prior to 2008 (Lindsey et al. 2007). The trend in international hunters visiting South Africa since 2011 is reflected in Table 5.

Year	Number of hunters
2011	9 138
2012	8 387
2014	7 638
2015	6 633
2016	6 539

Table 2: Number of international hunters visiting South Africa annually as provided by DEA.

With the closing down of hunting in Botswana in the beginning of 2014, it was expected that South Africa would see an increase in the number of international hunters coming to South Africa. However, this was not the case even though there was an annual increase in international tourists to South Africa (STATSSA 2016). In 2015, approximately 2 505 fewer international hunters visited South Africa compared to 2011 (DEA, 2011-2017) (Table 5). At an average spending of R261 762 by an international hunter per trip (TREES 2017), South Africa lost nearly R656 million in potential income from trophy hunting in 2015.

In an article in the *Landbouweekblad* of July 2016, senior executives of WRSA, PHASA and NAPHA acknowledged the fact that Namibia has now surpassed South Africa in terms of the numbers of international hunters visiting the country. This is despite the Namibian hunting industry, when compared to South Africa, being in its infancy (Landbouweekblad 2016). Available data clearly indicates a steady decrease in international hunters over the last couple of years. There are indications that negative stakeholder perceptions about canned hunting, hunting of animals that have been intensively and selectively bred for the purpose of hunting and the increase in the number of game fences, contributed to South Africa losing market share as preferred hunting destination in southern Africa, including Namibia. However, no comprehensive research has been done to substantiate this notion as these are current events and neither industry nor government has monitoring mechanisms to track changes in real time.

The expert panel appointed by the Ministry of Tourism to review tourism in South Africa, pointed out that South Africa is "strongly perceived as being a destination offering an 'adventurous' and a 'natural wildlife' experience and it remains dominant on these attributes in most markets" (SATOUR 2015). With an increasingly competitive global market place, the entire tourism experience is receiving more attention and not just the product offering such as spectacular scenery, friendly people and unique cultures (Ritchie and Hudson 2009). Jefferies and Lepp (2012), as well as Krüger and Saayman (2012) indicated in their research that a memorable tourist experience is an experience that has mental, spiritual and physiological outcomes. Wildlife ambiance has further been identified by Van der Merwe and Saayman (2014) as being fundamental in having a memorable game viewing experience.

The shift from natural wildlife areas to highly intensified game breeding operations with electrified fences (Taylor et al. 2015, Desmet et al. 2017) could influence wildlife ambience and the sense of place for hunters. It could further, together with the negative publicity about "canned" and "captive-bred" hunting in South Africa, impact on the perception of hunters on South Africa as a preferred hunting destination for fair-chase and wild hunting. This

notion is supported by various well-known trophy hunters and hunting outfitters that were interviewed as part of this assessment over a period of 18 months. A few specific comments are included for reference.

Real concerns expressed by overseas trophy hunters in particular included that they might not want to come and hunt in South Africa in the future in order to avoid being seen as participating in hunts that were not perceived as responsible. A former president of PHASA, stated that there was a growing perception among hunters in South Africa and around the world, that hunting in South Africa is becoming "tame" and that many animals offered to hunters are viewed as farmed animals that are accustomed to human interaction (Dorrington 2015; Flack, pers. comm. 2016). Dorrington (2015) further indicated that it is becoming increasingly difficult to sell South African hunting abroad.

On his return from international hunting shows early in 2017, the former president of PHASA indicated that it was the most difficult year ever to market hunting packages from South Africa⁴. This was supported by the managing director of the international hunting magazine, *African Outfitter* that attended the two biggest hunting shows by Dallas Safari Club in Dallas and Safari Club International in Las Vegas over the last six years. According to him, "many outfitters that exhibited at the 2017 shows confirmed that they struggled to market plains game hunts in South Africa, mainly because of the stigma attached to South Africa, that you will hunt tame animals in small camps, that animals are intensively bred, and because of the captive-bred lion hunting debacle"⁵.

The CEO of WRSA indicated that administrative challenges in acquiring hunting permits as well as marketing of South Africa as a hunting destination were contributing factors that required attention (Landbouweekblad 2016). The Namibian Ministry for Environment and Tourism could not verify detailed figures for trends in international hunting tourists to Namibia, as mentioned in the latter article. The Namibian government does not support hunting of captive-bred lion or game from intensive and selective breeding facilities. The Minister of Environment and Tourism of Namibia said in his official speech at the 42nd Annual General Meeting of NAPHA that "those who bred domesticated wildlife and put wildlife that was manipulated and bred intensively in captivity up for sale, were putting hunting and conservation at risk" (NAPHA 2015). NAPHA supports this view and condemn the artificial breeding of wild animals for the hunting sector (NAPHA 2015).

10.2 Economic impacts – a case study of shooting captive-bred lion

To further demonstrate potential social, ecological and economic implications of reputational damage to hunting and associated breeding practices of source populations, shooting of captive-bred lions will be briefly discussed as a case study.

The shooting of lions from intensively-bred camps first attracted international attention after the 1997 broadcast of the so called "Cook report," a British television report which showed shocking footage of lions being shot in small camps (SAPA 2017b). This was followed by judicial scrutiny in 2007 when SAPA took the minister of Environmental Affairs to court about new regulations that captive-bred animals could only be hunted after 24-months in a self-sustaining area (Williams et al. 2015). SAPA won the case on technical grounds as it was argued that the Department of Environmental Affairs (DEA) did not have a mandate to regulate animal welfare aspects.

⁴ Personal comment by Mr. Stan Burger. Previous president of PHASA, professional hunter and hunting outfitter that attended international hunting shows.

⁵ Geldenhuys, N. (2017). International sentiments around colour variants. Interview and e-mail communication from the Managing Director of the international hunting magazine, African Outfitter.

The captive breeding and subsequent shooting of lions in South Africa increased dramatically since then. In 2015, the lion population in South Africa was about 9 100, of which approximately 68% were in intensive breeding facilities and 32% free-ranging in protected areas (Williams et al. 2015). It is estimated that there are currently between 5 915 and 8 000 lions in 294 facilities (TREES 2017).

The growth and economic contribution of the intensive lion breeding sector and the economic contribution of shooting animals from these facilities changed dramatically in recent years. Statistics on trophy hunting from the Department of Environmental Affairs indicate that the annual number of international hunters visiting South Africa have seen a dramatic decrease of 28% from 2011 to 2016 (DEA 2011, 2016). At an average expenditure of approximately R262 000 by an international hunter per trip (TREES 2017), the country has lost almost R288 million in direct income from trophy hunting between 2014 and 2016.

Table 3: Trends from the top ten income generators of trophy hunted game species (DEA 2016).

TOP 10 INCOME GENERATORS (Mil. Rand)				
	2014	2015	2016	% Change 2014-2016
Lion	195	181	111	-43
Buffalo	127	145	220	73
Kudu	78	104	110	40
White rhino	72	76	83	14
Sable antelope	57	73	117	106
Gemsbok - Oryx	39	51	49	27
Nyala	45	46	76	71
Burchell zebra	39	45	51	29
Waterbuck	36	40	51	39
Blue wildebeest	36	39	50	39

Although the income generated from the top ten trophy species increased since 2014 - some with as much as 106% -, the income from lion hunting has decreased with 43% between 2014 and 2016 and the number of lions hunted decreased with 61% (DEA 2016). The majority of lions hunted in South Africa (>98%) are from captive-bred lion breeding facilities. Research by North-West University indicates that 56% of hunters are not informed that they are hunting captive-bred lions (TREES 2017). Lion hunting contributed approximately 18% of the income generated from trophy hunting in 2014, but this dropped to 8% in 2016, which amounted to approximately R110 million (DEA 2016). This is a drop of approximately R84 million in income generated since 2014 (DEA 2014, 2016).

The downward trend started prior to the trade ban on the import of lion trophies from captive-bred lion populations by the United States in late 2016. As discussed in the body of this report and confirmed by media reports, opinions from prominent role players and the captive lion breeding sector, these declines are linked to reputational damage associated with shooting of captive-bred lions for trophies. As the USA represents approximately 60% of the trophy hunting market of South Africa (DEA 2014), the USA trade ban resulted in significant reduction in cash flow of the intensive lion breeding facilities and affected trophy hunters. It has been described as "devastating" to the sector (SAPA 2017a).

A preliminary assessment by SAPA after a period of nine months, indicated that there was a loss of at least 320 lion hunts, which equates to a direct loss of income of approximately R78 million (Van de Vyver, pers. comm.

2016)⁶. With a drop in international demand, lion breeders started offering cheap lion hunting packages to locals (Lombaard 2016). Although hunting only contributes 24% of the income of breeding facilities, it enables multiple use strategies. Secondary income sources from products such as skins and bones contribute 9% of the income of breeding facilities (TREES 2017). Under the CITES export quota for 800 lion bone carcasses, this cannot replace income generated from the shooting of intensively bred lions because this quota is what has been traded previously as a secondary income stream from hunting. At the current (2017) price of R25 000 per carcass, it may not be economically viable to breed lions exclusively for the bones (Williams et al. 2015). The future implications of a regulated lion skeleton export quota on the viability of breeding facilities are unknown as it may affect the current price, supply and demand, which may in turn have an impact on the feasibility of poaching wild lions for their bones. This highlights the importance of considering risks for other cumulative impacts resulting from reputational damage.

At an average cost of R21 000 to feed one lion for a year, it will cost approximately R168 million to feed an estimated 8 000 lions in the country per annum, with average operational costs of approximately R50 000 per facility (TREES 2017). With a life expectancy of between 15 to 20 years for a lion, the financial burden to breeders is very high. With the viability of breeding facilities under pressure, concerns are being raised as to the emerging animal welfare risk. Increased incidents of neglect and euthanasia have already been reported (Confidential sources from provincial conservation agencies; Africa Geographic 2016).

Other indirect and cumulative impacts include increased administrative cost to government and the wildlife sector in dealing with the impacts of new trade restrictions as well as the indirect societal costs associated with redirecting limited public resources away from growing other sub-sectors of the wildlife economy, conservation and brand building of South Africa as responsible wildlife-based tourism destination. Other cumulative impacts include lion breeding facilities closing down with approximately 660 people already having lost their jobs (Van de Vyver, pers. comm. 2016).

It is evident from the lion case study that reputational risk and its impact on demand, with concomitant social, economic and conservation risks for the wildlife industry as a whole, was not anticipated by lion breeders, even though it is one of the biggest risk for any business (Humphries 2003, Ernst and Young 2016). It further highlights the importance of applying the NEMA principles in an integrated approach in considering risks associated with allocating resource use rights.

Reputational damage that can result from negative stakeholder perceptions about perceived irresponsible hunting practices and the shooting of intensively bred lions, poses economic risks to both the hunting and game ranching/breeding sectors, with concomitant social, economic and conservation risks for the broader wildlife industry.

This is in line with the theory on reputational management and business sustainability principles that highlights that negative perceptions about one subsector of the wildlife industry can affect the sustainability of another sub-sector in the same value chain.

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⁶ Van de Vyver, C. (2016). E-mail to SA Hunters on: Statistics on lion breeding facilities.12/5/2016.

The lessons learned from this case study and others, including the intensive and selective breeding of colour variants are the following:

- That game breeders that purposely breed game intensively and selectively have to recognise the
 importance of understanding market drivers and end-market or consumer market requirements, including
 consumer perceptions/preference as well as broader environmental and market trends and how that can
 change demand (there is a worldwide trend towards greater responsibility and sustainability);
- Production system implications, e.g. how populations are managed for the hunting market, are critical as
 consumers and the public are increasingly concerned about how products are developed/produced in the
 light of environment threats such as climate change, species extinction, land degradation, over and
 irresponsible use of natural resources (Dodds et al. 2010, UN 2012);
- Speculation linked to an extraordinary 'investment interest" in a market can lead to an escalation of prices
 as new investors buy into this market. This can result in inflated prices and oversupply, especially in cases
 of a poorly developed consumer markets, such as colour variants. The common outcome of such is
 massive profit for the originators and early investors and significant financial loss for the rest (Krige 2012,
 Volker 2012); and
- Strategic environmental assessments that consider the full lifecycle of a new development/sector within
 the wildlife economy ensure identification of current and potential future social, environmental and
 economic risks that can assist in pro-actively developing the necessary mitigation measures to either
 avoid or ameliorate impacts.

10.3 Conservation and socio-economic contribution of hunting

Functional ecosystems are critical for human well-being and sustainable economic growth as demonstrated in the Millennium Ecosystem Assessment. Loss of habitats and the rate of land-use change are among the biggest threats to conservation of ecosystems (UNEP 2005). Although there are some differences of opinion concerning the extent and effectiveness of hunting as a conservation tool, there is a significant evidence-base confirming the role of hunting as an incentive to conserve species and functional ecosystems (Potts 1992; Hitchcock 2000; Mateo-Tomás and Olea 2010; Child et al. 2012; Fischer et al. 2013b; Nelson et al. 2013; Winnercom 2014).

According to the IUCN, hunting can generate much-needed revenue and economic incentives for the management and conservation of target species and their habitats as well as supporting local livelihoods. This is especially the case for developing countries (Manfredo 2002; Di Minin et al. 2016; Naidoo et al. 2016) and areas where alternative wildlife-based land uses such as ecotourism are not economically viable (Lindsey et al. 2006). A peer-reviewed study conducted in 2007, where information on hunting was collected for 23 countries, showed that 1.4 million square kilometres were used for trophy hunting in sub-Saharan Africa, which exceed the area encompassed by national parks (Lindsey et al. 2007). Although there is evidence of a few cases where unsustainable trophy hunting has contributed to declines of species in Africa (Loveridge et al. 2007; Packer et al. 2011), it is not considered a primary threat and is typically a negligible or minor threat to African wildlife populations (Lindsey et al. 2016).

Reputational damage to hunting as a viable and responsible land-use activity within the wildlife sector, that serves as an incentive for conservation while providing socio-economic development opportunities to rural communities can result in trade restrictions and bans. Based on a literature review and six case studies about the impacts of trophy hunting on conservation and livelihoods, Cooney et al. (2017) concluded that "outright bans on trophy hunting, as well as import or transport restrictions on high-value species, especially in the European Union and the United States of America, could end trophy hunting by making programmes economically unviable", with concomitant serious population declines for a number of threatened or iconic species.

A specific example includes the impacts following the US import ban on elephant trophies in 2014, and the consequent import ban on lion trophies from Tanzania in 2016, that had significant impacts on hunting and its

contribution to conservation, especially considering that at least 70% of Tanzania's hunting safaris are sold in the USA (Mantheak pers. comm, 2018). Since 2014, a total of 79 of the 157 (50%) hunting concessions were vacated. According to Mantheak, the very species these import bans aimed to protect, suffered even more as a result of these trade restrictions. The biggest hunting operator in Tanzania, who spent millions of dollars on anti-poaching each year, also had to close down. Of the 38 Community Wildlife Management Areas, only 8 are still occupied.

Hunting largely takes place in the rural, underdeveloped areas that often have struggling economies. Some of the poorest provinces in South Africa, namely Limpopo and Eastern Cape, are the preferred provinces for hunting. Between 50–90 percent of the net revenues from hunting (excluding operator costs) is generally allocated to local entities, with the remainder going to government authorities in developing countries (Cooney et al. 2017). Hunting further generates revenue, livelihoods and socio-economic benefits that served as an impetus for land-use change towards wildlife across large tracks of land in southern Africa, and provided incentives for communities and landowners to protect natural resources (Lindsey et al. 2007).

Research on the profitability of game ranching in South Africa indicated that 30% of wildlife ranchers derive the majority of their income from hunting (Cloete et al. 2015). With hunting increasingly being perceived as undesirable following the public outcry about hunting of intensively and selectively bred game as discussed above, hunting as a revenue source may be excluded as an income stream for wildlife areas. Without the revenue from hunting, one can expect a reduction of competitiveness of wildlife-based land-uses relative to ecologically unfavourable alternatives. Given the escalating pressures towards land-use change and current trends in the agricultural sector where the number of farms on sale has increased by 45% in one year (Bezuidenhoudt 2016) the future contribution of these areas to conservation and ecosystem products and services would be highly uncertain without the benefits from hunting.

When considering that the extensive wildlife areas managed by the private sector comprise 14% of the country and represent more than twice the area covered by South African state protected areas (Taylor et al. 2015), a shift in land-use change towards intensification, can reduce the conservation contribution of these areas to national conservation targets and the provision of ecosystem service and products. The concomitant result of this could be negative for the broader economy that is fuelled by ecosystem services and it could increase the burden on government to foot the conservation bill and achieving conservation targets. Approximately 1 million ha has already been transformed to intensive game breeding systems (Taylor et al. 2015).

Additional to the conservation implications highlighted above, a shrinking hunting sector and reduction in international hunters coming to South Africa as a result of reputational damage, may impact on community-based approaches that allow local people access to and control over wildlife resources through hunting (Hitchcock 2000). In 2014, the ban on safari hunting in Botswana resulted in the loss of income generated by local communities and jobs previously created from safari hunting. In less than a year, the community-based forum in the Okavango Delta lost R9.4 million and 200 jobs due to the hunting ban (Mbaiwa 2017). Other socio-economic impacts reported, include reduction of income, employment opportunities, social services such as funeral insurance, scholarships and income required to provide housing for the needy and elderly (Mbaiwa 2017). Although it is acknowledged that communities in South Africa currently do not generate benefits to the same extent as what we see in other countries like Botswana, Zimbabwe and Tanzania, with the strategic focus on growing an inclusive biodiversity economy in South Africa, potential future benefits may be affected.

Other knock-on impacts include the contribution of hunting to food security, secondary economic activities in poor rural communities where edible by-products from hunting are sold, and poaching (Hofer et al. 1996; McCrindle et al. 2013; Mbaiwa 2017). Private landowners also use revenues from trophy hunting to fund anti-poaching operations (Lindsey et al. 2007). An increase in poaching can be far more damaging in both scale and demographic

impact than well-manned responsible hunting as is demonstrated by the fact that almost 20 times more African rhinos were poached in 2015 than those legally hunted (Emslie et al. 2016). In addition, the money from poaching flows to criminals while regulated hunting can contribute to the management of wildlife.

If, due to reputational risk, hunting is perceived as an undesirable strategy to generate income, it can also impede the ability of wildlife managers to manage game numbers, as not all areas are well suited to cost-effective live capture. The Bubye Valley Conservancy, one of Zimbabwe's largest wildlife reserves, recently announced that the controversy around the hunting of Cecil the lion potentially contributed to a dramatic decline in hunters, resulting in challenges in managing the park's predator numbers that were previously done through hunting. This negative impact was exacerbated by the loss in much needed revenue to manage the park (OUTDOORHUB 2015).

Despite the claims by commercial breeders that their captive bred game animals are required to reintroduce and restore species, these are often not based on any scientific evidence. Several research reports and international conservation organisations, including the African Lion Working Group, the United States Fish and Wildlife Service and SANBI, have questioned whether intensive and selective breeding of game for pure commercial purposes and "captive-bred" hunting contributes to conservation (Geist 1992; Hunter et al. 2013; Nelson et al. 2013; UTC 2015; Van Der Merwe 2016). SAPA (2017a) wrote a letter to the Secretary of the Interior in the US, motivating that the captive breeding of lions contributes to the conservation of lion in an attempt to get the US to reconsider its prohibition on the import of captive-bred lion trophies. 27 organisations and individuals responded - some with extensive experience, scientific knowledge and credibility in the field of lion biology, conservation and management - in an open response to Secretary Zinke that "the hunting of captive-bred lions neither benefits biodiversity conservation, nor the conservation of wild and free-ranging lions (African Lion Conservation Community 2017)

If commercial breeding practices are not aligned with conservation breeding principles, intensive and selectively bred game may not contribute to conservation, as demonstrated by the results of the recent red data listing exercise where very few populations of threatened game species that were bred intensively, qualified to be included as part of the viable "wild" population (Kruger et al. 2016).

Many hunting organisations worldwide distance themselves from shooting game that has been intensively and selectively managed (Table 2, Appendix 1) and agree that together with other irresponsible hunting practices, it is undermining the work that the hunting fraternity is doing in overcoming challenges associated with negative public perceptions about hunting and advocating its positive contribution to conservation of game and their natural habitats (NAPHA 2017, OPHAA 2017b, PHAZ 2017, ZPHGA 2017, DSC 2018).

11 ABSENCE OF CREDIBLE MARKET INFORMATION

Sustainability certification schemes are used by consumers to make informed decisions on the choice of purchases (APO 2009). Several international publications have highlighted the need for best practice guidelines and/or a certification system to inform responsible hunting (Baldus and Cauldwell 2005; Booth 2005; Child and Wall 2009; Miller et al. 2016a).

For the hunting sector to determine its performance on these and other criteria, information is required on wildlife management practices of hunting destinations because hunting cannot be separated from the management of game (Fischer et al. 2013a). However, the required information is not available for most of the products and services in the wildlife industry in South Africa (Child and Wall 2009; Brink et al. 2011). There is no segmentation and labelling system to distinguish between the various game farms and breeding operations based on sustainability criteria and the requirements discussed above for the hunting sector to demonstrate that it is

sustainable and socially responsible. Dalerum and Miranda (2016) confirmed that current valuation and demand relating to game on offer in South Africa is driven by imperfect market information. The lack of reliable market information and a mechanism for informed decision-making may impede the sustainable contribution of hunting as the biggest contributor to the wildlife economy.

To address risks for the broader tourism industry, South Africa developed a "Responsible Tourism" Guideline and manual to harness opportunities presented by the trend towards more "responsible" tourism business practices. It acts as a positive marketing tool, provided that claims of responsibility are credible and based on demonstrable delivery of responsible activities and objectives. It further states that the environmental, social and economic impacts of tourism developments must be assessed and monitored, with open disclosure of information (Spenceley et al. 2002). The guideline does not address the requirements of the hunting sector to make informed decisions on whether or not management practices associated with the game on offer for hunting, align with their requirements for sustainability and a responsible hunt that contributes to conservation of wild populations and their habitats. As such, it cannot be used as a mechanism by either the game ranching, game breeding or the hunting sector to demonstrate performance on sustainability indicators or to reduce reputational risks for the various sectors and the industry.

The need for industry standards and a certification/labelling scheme specifically to reduce risks to the sustainable growth of the various sectors within the wildlife economy was identified during the recent Biodiversity and Tourism Lab of the Department of Environmental Affairs (DEA 2016). This need has in particular been confirmed by South African consumptive hunters that believe a "green certification system" will help to distinguish between responsible hunting and other forms (TREES 2017) that can contribute to addressing the challenges associated with South Africa losing market share as the preferred hunting destination. A certification system could result in related comparative advantages for South Africa in capitalising on the changing consumer trends towards increasing environmental, social responsibility and awareness in tourism (Sasidharan et al. 2002). It is notable that both Namibia and Botswana, that are known for large extensive wildlife areas that support their wildlife-based tourism industry, supersede South Africa on environmental sustainability indicators measured for competitiveness (LEDET 2013). According to the chief executive officer of NAPHA, the growth in international hunting in Namibia has a lot to do with the promotion of the country as a responsible hunting destination.

Most hunting associations publish a code of good practice for their members on their websites, but the focus is predominantly on the activity of hunting. It lacks the required links to assess performance in terms of contribution to conservation of the resource base. WRSA and SAPA that represent breeders are developing internal standards for intensive and selective breeding operations for its members. SAPA also developed a standard for hunting of captive-bred lions (SAPA 2017b). These standards do not address the international best practice criteria discussed above and the broader hunting sector were not consulted to determine consumer perception.

For the trophy hunting sector, it is necessary to address requirements of the CITES COP17 approved resolution on hunting trophies, which indicates that: "countries should consider the contribution of hunting to species conservation and socio-economic benefits, and its role in providing incentives for people to conserve wildlife, when considering stricter domestic measures and making decisions relating to the import of hunting trophies" and "that trophy hunting activities relating to CITES Appendix I listed species should produce tangible conservation benefits for the species concerned" (CITES 2016). Work has already begun on a clear framework to "guarantee the sustainable and legal origin of hunting trophies of species listed in Appendix I or II, to ensure that trophy hunting is sustainably managed, does not undermine the conservation of target species and, as appropriate provides benefits to local communities" (CITES 2016).

12 CONCLUSION

This assessment confirmed that, with increasing pressures on natural resources, there is a growing demand from the public at large that enterprises should better demonstrate that their practices are in line with international principles of sustainability and that they are socially responsible in utilising the natural resource base. Furthermore, extensive research exists on the environmental and business principles that support responsible and sustainable growth of enterprises and the risks associated with poor reputational management. Although relevant to all sectors of the wildlife industry, this study demonstrated that the hunting sector, in particular, is highly vulnerable to negative stakeholder and public perception.

Despite absence of comprehensive economic research on the interdependencies of the various sectors within the wildlife industry in South Africa, there is a substantial body of evidence from prominent local and international hunting organisations, international conservation organisations and members' of CITES and the IUCN, that, in the absence of clearly defined product differentiation in the hunting market, intensive and selective breeding of game for hunting has a high risk of exacerbating negative perceptions about hunters, hunting in general and conservation in South Africa.

The assessment of this literature and the chain of events and incidents related to the captive lion breeding subsector, demonstrated that reputation is a matter of perception and not necessarily a reflection of actual behaviour. Although shooting of intensively bred lions is legal in South Africa and was practised for years, stakeholder perceptions thereof have changed over time as attitudes towards hunting have changed. Negative perceptions are not only towards "canned" hunting, but also "captive-bred" hunting, "put-and-take" hunting and "tame" hunting.

Hunting incidents and activities perceived as socially unacceptable, such as shooting of captive-bred lions, have been used by protectionist groups to tarnish the reputation of hunting in general. Over the past few years, these have contributed toward international policy changes that were not only geared towards illegal hunts or captive-bred lion hunts, but also legal hunts of other species and exports of trophies from hunts where a contribution to conservation could not be readily demonstrated (even though such contributions almost certainly do exist). The majority of key role-players within the hunting fraternity worldwide do not condone the shooting of intensively and selectively bred game, because it does not comply with the principles of fair-chase hunting and the requirement of hunting to be sustainable.

It is clear from the assessment that reputational risks are linked to both the activity of hunting as well as the management practice associated with source populations, suggesting that reputational risks and management should be addressed, taking the full value chain into account.

If reputational risks are not managed urgently, appropriately and holistically within the full value chain, the trend of negative social, economic and conservation implications that several sectors of the wildlife industry are already experiencing, might continue. It will have far-reaching implications for growth of the wildlife economy and the private sector's positive contributions to rural economic growth, the well-being of communities, and conservation in general. This would increase the pressure on government to foot the bill for delivery on these national priorities.

There is a high level of agreement from scientists and industry members that development of industry standards, guidelines and certification/labelling - which address both the practice of hunting and management practices of affected source populations - can reduce associated risks and mitigate potential impacts within a market economy

such as South Africa. Aspects that have been identified as critical for sustainability of hunting as highlighted in this report should inform this process.

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APPENDIX 1

Table 1: Milestones in the campaign against hunting of captive-bred lions as reported on the Facebook Webpage for Blood Lions (Blood lions 2016).

- Over 300 000 You Tube views of the movie trailer to date.
- 37 000+ followers with a weekly reach of over 60 000 people.
 - The FB campaign has reached over 11 million people in 12 months
- The Twitter campaign has reached nearly 4 million people in 12 months
- · Five international tweet storms with millions involved worldwide
- International media coverage has generated publicity for the campaign worth over R21 600 470
- Worldwide distribution by PBS International, with screenings by Discovery channel, Animal Planet and MSNBC in 185 countries and territories
- Critical parliamentary screenings in Australia, Botswana, European Parliament, Brussels and Finland. Italy and Spain amongst others are still to come.
- Australia, France and Netherlands have banned the importation of lion body parts.
 - US Fish and Wildlife Service have placed tighter restrictions on the import of lion "trophies"
- 42 major airlines no longer carry lion hunting trophies
- National Geographic called their Blood Lions feature one of the 12 most powerful stories bringing awareness to conservation, poaching and wildlife trafficking over the last decade
- · Screening, key-note address, workshops at ITB Berlin, world's leading trade travel show.
- . The film screened with Q&A at World Travel Market in South Africa, The Conservation Lab and Indaba
- The wider trophy hunting community has certainly taken notice of Blood Lions with engagement taking place at various levels in different countries. In particular, we welcome the outcome of the recent PHASA AGM (http://phasa.co.za/.../682-position-paper-on-captive-bred-lio...hunting.html) where the majority of members voted against captive breeding and canned hunting
- · African Lion Working Group publishes statement on "Captive-bred Lion Hunting and Associated Activities"
- World Youth Student Travel Conference screenings (September 2015) motivated tourism industry to set up closer scrutiny of lion petting and breeding facilities with result that many volunteer and other interaction programmes have been removed from itineraries and websites.
- Fair Trade Tourism revised strict criteria regarding animal interactive Voluntourism.
- Partnership with Global Nature Fund to support a Blood Lions Campaign in Germany, as well as Campaign Against Canned Lion Hunting international and South Africa.
- Blood Lions, with Wildlife ACT Volunteer in Africa and members of the tourism industry initiated and launched a 'Born to Live Wild' Pledge which has been endorsed by some of the most influential tourism industry leaders worldwide.
- Tourvest, one of Africans leading travel operators, embraces Born to Live Wild tourism pledge with internal pledge across group of companies.
- Blood Lions and Empowers Africa raised funds in the US to support an additional inspector on the NSPCA Wildlife Unit in South Africa.

Table 2: Summary of position statements of prominent local, African and international hunting organisations on hunting of intensive and selectively breeding of game.⁷

Organisation	Description	Summary of Statement Hunting / Conservation	Reference
		Local organisations	
Confederation of Hunters Associations of South Africa (CHASA)	It is a federation of over 25 hunting, hunting-related and shooting affiliates across South Africa.	CHASA recognises that the Wildlife Industry, whilst underpinned by fair chase hunting, of necessity includes activities to harvest game or reduce damage causing animals or otherwise manage offtake. The differences between these various legitimate, essential activities is a	CHASA, 2016

⁷ It is important to note that since PHASA changed their official position on captive-bred lion hunting at their annual general congress in November 2017, many organisations published new official positions on the matter as well as their association with PHASA.

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		question of semantics amongst hunters. We are bound to stand in defence and further the interests of those who participate across all these various activities. CHASA aims to preserve and cultivate the traditions and lore of hunting. Notwithstanding the statement in the preceding paragraph, CHASA encourages all hunters to seek personal fulfilment in their quarry taken in a manner as close as is reasonably possible to that described in our Fair Chase Policy whenever the intent of the harvest is for the celebration of a trophy or entering into our SA Record Book. To this end, any animal taken from a source and/or in a manner which is not close to this standard, should be taken for personal or consumptive use and be seen as a harvest or management hunt only. CHASA is opposed to the deliberate breeding of hybrids and discourages its members, and hunters in general, to seek to hunt, and thus create a demand for such animals. CHASA condemns the irresponsible practice of "put & take hunting" where animals are hunted so soon after translocation that they are not habituated to their new territory. CHASA will condemn any breeding practice where proper scientific evidence indicates that it could be harmful to existing wildlife meta-populations and/or biodiversity. Recognises that there are members who do hunt captive-bred lions. Strongly endorse the stated ambitions of SAPA relating to their self-governance and oversight role. Urges members who are desirous of hunting captive-bred lions to ensure that their hunt is conducted in accordance with SAPA Norms & Standards, and preferably on a farm accredited by SAPA. Supports the policy position of PHASA on captive-bred lion shooting.	CHASA, 2017a. CHASA Position Statement on the Hunting of Captive-bred Lions. CHASA, Uitenhage, South Africa. CHASA, 2017b. Letter to DSC Executive and Hunters. https://www.face book.com/searc h/top/?q=CHAS A
Professional Hunters Association of South Africa (PHASA)	The association in SA with the core business of serving the professional hunting industry. It has approximately 1200 members.	 PHASA rejects: Hunting of canned or captive-bred lions. The hunting of animals in any area other than an "extensive wildlife system" as defined in the Threatened and Protected Species (TOPS) Regulations issued i.t.o. Act 10 of 2004. Any notion or claim that colour variants are bred to satisfy a significant demand in the trophy hunting market. Any notion or claim that breeding practice aimed at increasing horn size is necessary because trophy hunting depleted the gene pool. Any notion or claim that the breeding of animals with abnormally large horn length lengths is driven by a significant demand in the trophy hunting market. 	PHASA, 2015; PHASA, 2016a

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		 Highly controversial practices such as artificial insemination, cloning, genetic manipulation and any procedure that produces artificial colour variants. The inclusion of any further colour variants in trophy hunting record books. Any form of "catalogue marketing" of individual wild animals or groups of wild animals for hunting purposes. PHASA vehemently rejects all forms of canned or illegal hunting. Does not condone all forms of captive-bred lion hunting. At the 40th Annual General Meeting (AGM) in 2017 voted in favour of the following resolution: "PHASA accepts the responsible hunting of ranched lions on SAPA accredited hunting ranches within the relevant legal framework and/or according to recommendations of the applicable hunting association, such as SCI's fair chase standards." Committed to upholding fair chase and ethical conduct of members partaking in such hunts as contained in the National Environmental Management: Biodiversity Act, 2004 (ACT 10 of 2004): Threatened or Protected Species (Tops) Regulations "Codes of Ethical Conduct and Good Practice" 	PHASA, 2017a. PHASA - adopts new constitution and resolution at 2017 AGM. https://www.pha sa.co.za/what- is-in-the- news/phasa- press- release.html PHASA, 2017b. PHASA facts vs fiction. https://www.pha sa.co.za/what- is-in-the- news/phasa- press- release.html
South African Hunters & Game Conservation Association (SA Hunters)	Established in 1949, it is the biggest hunting and conservation association in SA and Africa with more than 40 000 members. It represents consumptive hunters, approximately 1000 farmers/landowners, sport shooters and gun owners.	 Opposes artificial and unnatural manipulation of wildlife to enhance or alter species' genetic and phenotypic characteristics (e.g. coat colour, body size or horn size) in particular through intentional cross-breeding of species, subspecies or evolutionary significant local phenotypes and or the use of domestic livestock breeding methods such as, but not limited to, line breeding, germplasm and semen production or trading, artificial insemination, embryo transfer, castration, growth hormone treatments, controlled or unnatural breeding programs and cloning. Opposes the intentional breeding of indigenous wild animals in intensive- or highly altered semi-intensive production systems for purely commercial purposes. Encourages Government to institute adequate control mechanisms for the regulation of commercial breeding and production operations with indigenous wild animals. Urges all SAHGCA members to abstain from trading in and hunting animals so manipulated as contemplated. Is committed to further develop and promote the principles, criteria, indicators and incentives for responsible wildlife utilisation, including hunting, as well as extensive wildlife ranching based on sound conservation principles. 	SA Hunters, 2014
South African Movement for the Promotion of Ethical Outfitters (SAMPEO)	A group of nine experienced professional hunters and outfitters in SA that distance themselves from hunting of lions bred in controlled environments.	Condemn the immoral practice of canned/captive-bred lion shooting, where lions are bred for the sole purpose of being killed by paying clients and play no meaningful contribution to wildlife conservation, financial or otherwise that aids the species the African Lion (Panthera leo) in its natural state. See no meaningful distinction between the terms "canned" or "captive-bred" lion.	SAMPEO, 2015

		The activities of a few have severely tarnished the reputation of our industry. They have caused major harm to those of us who are committed to acceptable hunting practices that enhance the already significant conservation efforts that have been and are made by hunting in South Africa. African organisations	
Federation of Namibian Tourism Associations in Namibia (FENATA)	This federation represents the different tourism products in Namibia, including amongst others, accommodation facilities, the tour operators, professional hunters, community-based tourism enterprises, tourism products within Communal Conservancies, travel agents, tour guides, protected desert areas and businesses selling commodities to tourists.	Request MET to ban the import and export of all gene- manipulated wild game species into or out of Namibia, as well as all game trophies bred for colour variation or game animals which are used for artificial breeding of outsized trophies.	FENATA, 2016
Namibia Professional Hunting Association (NAPHA)	The association represents professional hunters in Namibia. It has over 400 members.	We condemn the artificial breeding of wild animals for the hunting industry. We are particularly concerned about the increasing selective line breeding of wild animals to produce colour variants or outsized horn growth. We consider these practices detrimental to all conservation orientated wildlife management practices.	NAPHA, 2016
		 States there is a distinct and profound difference between the definitions of the concepts of "legal" and "ethical" and that, just because something might be legal (or not yet deemed to be illegal), that it is therefore ethical. Rejects the definition of the term "ethical" as meaning "all types of hunting permissible by law", as it is seen to fly in the face of the Code of Ethical Sport Hunting Conduct for Africa. See hunting of captive-bred lions in direct contravention of what is considered fair chase and ethical hunting. Therefore, it cannot be called hunting. It is the view that canned and captive shooting are rejected by all ethical hunters who believe that there is small difference between the two. States that PHASA and hunting captive-bred lions place all the hard work undertaken by various institutions in support of sustainable hunting as a tool of conservation, in jeopardy and that supporting it would be detrimental to the entire hunting industry worldwide. Condemn the decision by PHASA to support captive-bred hunting in the strongest possible terms and distances itself from this decision which has severely tarnished the reputation of the entire African hunting industry. 	NAPHA, 2017 Press release from the Namibia Professional Hunting Association. November, 2017. http://www.naph a- namibia.com/file admin/user_uplo ad/NAPHA Pres s_Release_24.1 1.2017.pdf
Namibian Ministry for Environment and Tourism	Government department responsible for hunting, conservation and tourism.	Hunting outfitters and professional hunters who put wildlife that is manipulated and bred intensively in captivity up for sale are putting hunting and conservation at risk. Captive breeding mostly for financial purposes has its downside, such as behavioural problems in animals that	NAMPA, 2015

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Outlitton and	An international association	 are eventually released as they are unable to hunt or forage, and loss of habitat, amongst others. Will not be allowed to get out of control in Namibia as they threaten to destroy what the Namibian hunting and conservation community has worked hard to establish over the past 60 years. No one who cares for the conservation of wildlife and wildlife habitats and all they have to offer should allow this to happen so that a few greedy people can make a short-term profit, which benefits only them at such a high cost to the country. Anything which damages or abuses hunting will have a negative effect on conservation in Namibia. 	Porotoky 2015
Outfitters and Professional Hunters Associations of Africa (OPHAA)	An international association that represents nationally recognized African hunting associations. Its membership include approximately 11 hunting organisations from 9 African countries (Botswana, Ethiopia, Mozambique, Namibia, South Africa, Tanzania, Uganda, Zambia and Zimbabwe).	 Promote legal and ethical fair-chase sustainable hunting in Africa. We condemn the artificial breeding of wild animals for the hunting industry. 	Boretsky, 2015
		 Suspended PHASA from OPHAA after PHASA's policy change to conditionally support captive-bred lion hunting at the end of 2017. States that captive-bred lion hunting brings the entire hunting industry in every African state where hunting is permitted, in ill repute. It disregards the fundamental fair-chase principle and jeopardise conservation efforts and livelihoods generated by well-managed and ethical hunting operations. 	OPHAA, 2017b Press release: PHASA suspended from OPHAA. November 2017. ww.OPHAA.org
Safari Operators Association of Zimbabwe (SOAZ) Zimbabwe Professional Hunters & Guides Association (ZPHGA) Zimbabwe Tour Operators Association (ZTOA)	All members of the Zimbabwean Wildlife Sector	 Commitment in promoting and encouraging the legal and ethical fair-chase sustainable use of wildlife resources for the benefit of wildlife, communities and the tourism industry. View captive-bred lion hunting as abhorrent and unethical. 	SOAZ, 2017. Statement by the Safari Operators Association of Zimbabwe; the Zimbabwe Professional Hunters & Guides Association and the Zimbabwe Tour Operators Association. November, 2017. SOAZ, Harare, Zimbabwe.
Zimbabwe Professional Hunters & Guides Association (ZPHGA)	Represent professional hunters & guides	 Acknowledges that the wildlife management model in South Africa is vastly different to its neighbours' and is based on wildlife ownership by the landowners and a game ranching model. Finds that taking a decision to support captive-bred shooting only based on laws and regulations and reported 	ZPHGA, 2017. Open letter to the President, EXCO and Members of PHASA.

		economics of the practice and not considering the will of	ZPHGA, Harare,
		the (hunting) world, as puzzling.	Zimbabwe.
		With the experience from Cecil, experienced the	
		implications of world perception and influence and	
		realised how actions have ramifications stretching from	
		Zimbabwe to Alaska.	
		The practice of captive-bred hunting can no longer be	
		tolerated by fellow African professional hunting	
		organisations and the world and will never be perceived	
		as fair chase.	
		The impression that captive-bred hunting will be accepted by fellow professional hunting organisations and the	
		general public is wrong, without question.	
		Standards and certification of captive breeding for hunting	
		facilities, is simply a way of trying to justify the practice	
		and hoodwinking the naive into believing that the practice	
		can be considered fair chase, sustainable and a	
		conservation tool, even though these regulations do not	
		comply with current SCI recommendations or are not in line with fair chase in the rest of Africa.	
		Lion Production is not Lion Ranching and cannot support fair chase hunting.	
		Challenges to overcome changes in global wildlife	
		management policies while maintaining and protecting	
		professional fair chase hunting as the foundation for	
		protecting marginal and isolated ecosystems and wildlife	
		and branding responsible hunting as conservation tool is	
		undermined by captive-bred shooting.With its decision to support captive-bred lion shooting,	
		PHASA has inadvertently divided and alienated itself from	
		the professional hunting fraternity.	
		No longer recognise PHASA as a professional hunters	
		association.	
Professional		No longer recognise PHASA as a professional hunters	PHAZ, 2017.
Hunters Association		association and distance themselves from PHASA due to	Statement by
of Zambia (PHAZ)		its direct contradiction in firstly 'professional' and 'ethical'	the Professional
		hunting and secondly in the public approval of captive-	Hunters
		bred lion shooting.	Association of
		The very perception of captive-bred lion shooting is	Zambia (PHAZ).
		hugely detrimental to endeavours to promote 'fair chase',	November 2017.
		'ethical' and 'professional' hunting as a management tool in conservation.	Lusaka, Zambia.
		Any member of PHAZ found to be involved with captive- bred lion shooting in any way, such as,	
		promoting/booking/selling/guiding and observing' will	
		cease to be a member of PHAZ due the direct conflict.	
		Committed to promoting and encouraging the legal and	
		ethical fair chase sustainable use of wildlife resources for	
		the benefit of wildlife, communities and the tourism	
		industry in all member countries of OPHAA.	
		International organisations	
Boone & Crockett	The most influential and	The Club will speak out when necessary to defend hunting	B&CC, 2015
Club	prestigious hunting and	and its value to conservation. This includes pointing out	
	conservation body in North	activities that undermine the public support of hunting.	
	America, founded originally	The practices of deer breeding and shooting operations	
	by President Theodore Roosevelt. It has only 100	should not be accorded the same level of public	
	130036VGIL IL HAS UTILY TUU	acceptance as the ethical hunting of wild, free-ranging	

	full members of which almost	game that is the foundation of the North American Model	!
	full members of which almost all are wealthy, influential, opinion-makers. While the organisation is focussed on North American wildlife and habitat it has joined the CIC in Europe to influence and affect hunting and conservation on a broader basis.	game that is the foundation of the North American Model of Wildlife Conservation and forms the tradition of the Club and the majority of hunters. The benefits that hunting brings to conservation, wildlife management, wildlife health, and land stewardship, and the opportunity for future generations to freely hunt wild species is worth much more than an industry seeking short-term profits. Selective breeding and artificially growing deer and elk with unnaturally large antlers to be sold and then shot in a put-and-take situation is not representative of traditional hunting, and these practices should be discouraged. The captive-cervid industry is ignoring the fact that society rightfully expects hunting to be conducted ethically. If hunting is perceived as less than fair (i.e., less than desirable, reputable, and legitimate) our society may no longer tolerate hunting in any form. Oppose canned "hunting" as a violation of the principles of fair chase and an affront to the time-honoured traditions of hunting. Just because captive-bred lion shooting is "legitimate" does not make it ethical – it flies in the face of the ethical standards sportsmen have carried with them for more than 100 years. Canned shoots should be of great concern to all sportsmen and sportswomen, not only as a matter of	B&CC, 2017. Press release on canned shoots. November, 2017. Boone & Crockett Club Webpage. http://mailchi.mp
International Council for Game & Wildlife Conservation (CIC)	CIC represents 26 USA State Members, a wide range of organisations engaged in hunting and conservation, as well as individuals such as private members and scientific experts from 86 countries around the world	than 100 years. Canned shoots should be of great concern to all	Crockett Club Webpage.
		domestic livestock breeding methods like flow cytometry or genetic testing, germ plasm and semen production or trading, artificial insemination, embryo transfer, castration, growth hormone treatments, controlled or unnatural breeding programmes, cloning.	

Dallas Safari Club (DSC)	Established in 1982, situated in Dallas USA with in excess of 6000 members around the world. Has given grants totalling more than \$5 million to directly support its mission statement of conservation, education and protecting hunters' rights. Host one of the most prominent hunting show in America and the world.	DSC has a responsibility to support and encourage ethical hunting practices, even where ethical practices do not align with what is legally permitted. The practice of captive-bred lion hunting is not a practice that is in keeping with its values of ethical and fair chase hunting. DSC does not support the practice of captive-bred lion hunting.	DSC, 2018. Dallas Safari Club Position on Captive-bred Lion Hunting. http://dscnewsce nter.org/2018/01 /dsc-position-on- captive-bred- lion-hunting/
Hohe Jagd & Fischerei" Fair	One of the prominent hunting shows in Europe.	 Dissociates itself from the promotion of shooting farmed game animals and lions bred in captivity. Strives to promote ecologically sustainable and ethically acceptable hunting practices. The shooting of lions bred in captivity, and of genetically manipulated African game animals – in enclosed areas – bears no relation to the purposes and principles of hunting, and severely damages the public's conception of hunting and hunters. This is also the case with regards to the shooting of artificially bred colour variants and mutations of game animals that cannot be found out in the wild. 	HJFF, 2016
International Professional Hunters' Association (IPHA)	Established in 1969 with over 400 members coming from some 30 countries around the world.	 Strongly oppose hunting captive-bred, or ranched lions and the Professional Hunters' Association of South Africa's recent decision to condone the practice. Finds no compelling evidence that the breeding and raising of lions in captivity for the ultimate purpose of being shot within fenced areas of any size promotes conservation of species or habitats. Finds no conservation value in hunting of captive-bred lions under any circumstances. Makes no distinction between captive-bred lions and so-called "ranched" lions that are bred in captivity and released onto hunting ranches, whether or not these practices meet the accreditation standards of PHASA and/or the association of predator breeders in South Africa (SAPA). Views the practice of shooting captive-bred lions as detrimental to the reputation of the entire hunting industry at a key time when the ethics and conservation value of legal and ethical hunting faces increasing public scrutiny and challenges. Will immediately review/revoke the membership of any person determined to be participating in the practice of hunting captive-bred or ranched lions. Acknowledge the conservation contribution of "wild-managed" lion populations that are free-ranging, self-sustaining predators on vast fenced reserves in South Africa whose management may include carefully controlled and sustainable quotas for fair-chase hunting. 	IPHA, 2017. IPHA'S statement against hunting of captive-bred &/or ranched lions. IPHA Facebook page. https://www.face book.com/Intern ationalprohunter s/?hc_ref=ARQj hgQ_RYoCgJj4 VX9RXiqwWEN BpleAx7s89HO7 jgSkLLCOwM6U zoEvKNdHtx3cu Lc&fref=nf
"Jagd & Hund" Exhibition	Europe's biggest hunting exhibition.	Strictly forbid the selling or advertising of any type of killing captive breed lions or artificial breed game at the "Jagd & Hund" show.	J&H, 2016

		Exhibitors who would not follow the ban were advised that their booth would be closed - and they would lose the	
		 chance to return to the exhibition - forever. With this clear position the Dortmund exhibition sent a sign to the world that hunters all over the world would not close their eyes in fact of the pervert breeding industry in South Africa - and will not agree to call such practices "hunting" and those who take part of it aren't "hunters" any longer. 	
Nordic Safari Club (NSC)	One of Europe's largest hunting associations and second largest hunting market to SA.	 Will boycott canned lion hunting in South Africa. Boycott promotions of canned lion hunts at its trade shows. Are against shooting lions that were fed by humans, as this is not hunting, but killing a half-tame animal for profit. Scandinavian hunters not interested in South African hunts. All hunts not just lions. Members may not import lion trophies from South Africa. Nordic hunters will uphold the hunting ethics that the South African hunting industry and government had dropped. 	Tempelhof, 2014
		 It is important to protect the image of South African hunters against breaching of ethical principles particularly relating to canned lion shooting, breeding of artificial colour variants and genetic mutations. Removed all South African lion trophies from their record books. Banned all advertisements from operators offering canned lions in their magazine or any editorial material relating to the practice. Asked members to refrain from buying hunts or doing any business with outfitters offering canned lion shooting. Warned that the associated bad publicity cannot be afforded in a time where many proposals restricting trophy import in the EU are in the pipeline. 	NSC, 2017. Reversal of policy on canned lion shooting. Letter to PHASA. November, 2017. NSC Facebook Page. https://www.facebook.com/search/str/Nordisk+Safari+Klub+canned+lion/keywords_pages?see_more_ref=eyJzaWQiOiliLCJyZWYiOiJzZWVfbW9yZSJ9
Rowland Ward	Rowland Ward has been a world-renowned brand in the sporting and outdoor market since 1870. It houses the "Records of Big Game series", one of the two world famous recognised international trophy record books.	 Hunting within game-proof fences is acceptable if it promotes the general well-being and conservation of habitat and the species enclosed. Enclosures, however, must promote self-sustaining, breeding populations that can feed themselves from naturally occurring vegetation and prey without continual supplemental feeding by humans. They shall provide enough acreage and vegetation that animals can easily hide from humans and predators alike, and they must offer a hunting scenario whereby the outcome of obtaining a certain animal is by no means guaranteed. Animals that are released solely for hunting purposes shortly thereafter will not be accepted for entry into the record book. Any animal shot in an enclosure that lacks adequate food and acreage is not eligible for entry into the record book. 	Rowland Ward, 2017

		O-law-radations of an arise:	
Safari Club International (SCI)	With 55 000 members, it is the most influential and wealthiest hunting organisation in North America with a focus on Africa. It is the home for Americans who hunt internationally. It has a lobbying force in Washington, D.C. and senior politicians like the Bush family and senior military people like Schwartzkopf have spoken at its annual convention. It generates in excess of \$1 million for conservation projects predominantly in Africa.	 Colour variations of species in certain animal populations and particular regions have been naturally occurring probably since the dawn of time. Rowland Ward Ltd., in fact, has several categories that are, by and large, based on naturally occurring coloration-only differences, such as the Angola impala. However, Rowland Ward Ltd. will not accept animals that are specifically bred with the goal being to establish a separate colour-based category for trophy hunting. Rowland Ward Ltd. will not create categories for such animals. No hybrid animals will be accepted unless such animals have a natural hybridization zone in a completely free range, such as the Armenian mouflon and the Transcaspian urial. The SCI Record Book Committee will review and add new big game animal species and sub-species as entries to the Record Book and World Hunting Award programme given the following requirements: All new SCI Record Book entries will use the best available science regarding the taxonomic status of an animal; The SCI Record Book entries will add new species to the record book based on scientific evidence that the entry represents a valid taxonomic species or grouping of related sub-species and not simply a hybrid, a colour variant, or genetic mutation of an existing species; The SCI Record Book committee does not support procedures or practices with wildlife that produce non-typical colour variants, horns, antlers, or body size; The SCI Record Book committee discourages breeding practices that genetically manipulate wildlife species to alter appearance or size, including assisted reproductive 	Boretsky, 2015
		technologies that include genetic manipulation and wildlife cloning. The SCI has stated that colour variant springbok records would remain in the record book based on the 'grandfathering' principle.	
Spiral Horn Antelope Club	It is a ten-year old specialist hunting club for those interested in the 30 species and subspecies of spiral horn (tragelaphine) antelopes. It has approximately 400 members.	The intensive breeding and domestication of wildlife to produce animals with exaggerated horn lengths and unnatural colour variations is, along with canned hunt killing, causing overseas hunters to avoid South Africa. This, in turn, is having a seriously adverse effect on hunting and, consequently, on conservation in this country.	DEA, 2016b
Wild Sheep Foundation (WSF)	A North American hunting organisation focussed on enhancing wild sheep populations, promoting professional wildlife management, educating the public and youth on sustainable use and the conservation benefits of hunting while promoting the interests of the hunter and all stakeholders.	On captive-bred lion hunting: "Just because they have the right – does not make it right"	WSF, 2016

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	Recognises the South African wildlife conservation model,	WSF, 2017.
	based on privatisation of wildlife and regulated hunting,	WSF Severs
	has played an integral and critical role in the country's	Ties with
	incredible conservation success.	PHASA over
	Condemns the practice of breeding and captive-rearing of	Captive-bred
	predators which cannot sustain themselves naturally and	Lion Hunting
	then releasing them for the sole purpose of shooting them	Policy Reversal
	under restrictive conditions. Recognizes that while legal	WSF Facebook
	by South African law, many within South Africa's hunting	Page.
	and conservation community condemn such practices.	November,
	Opposes captive-bred hunting as the practice has not	2017.
	been scientifically proven to enhance free-ranging	https://www.face
	populations or otherwise provide conservation benefits to	book.com/pg/Wil
	wild lions and is contrary to the principles of fair chase	dSheepFoundati
	hunting.	on/posts/?ref=pa
	 Severed affiliation and sponsorship support with PHASA's 	ge internal
	after their reversal of its 2015 policy condemning the	
	practice of hunting captive-bred lions under controlled	
	conditions.	
	WSF will continue to support outfitters and professional	
	hunters in South Africa who are committed to	
	conservation through ethical hunting and the sustainable	
	use of the country's incredible wildlife resource.	
	doo of the country of herodisic wilding resource.	<u> </u>

Table 3: Summary of position statements of organisations representing game farming/breeding/management and prominent conservation organisations that have been known to participate in the debate on intensive and selective breeding of game for pure commercial purposes.

Organisation	Type of Organisation	Summary of Statement Hunting / Conservation	Reference
		Local	
Association of Zoos and Aquariums (AZA)	The association is dedicated to the advancement of zoos and aquariums in the areas of conservation, education, science, and recreation. AZA represents more than 230 institutions in the United States and overseas, which collectively draw more than 183 million visitors every year.	Intentional breeding to achieve rare colour-morphs may seriously compromise the welfare of individual animals and such breeding practices are also problematic from a population management and conservation perspective.	AZA, 2011
Endangered Wildlife Trust (EWT)	A non-governmental, not- for-profit conservation organisation, dedicated to conserving threatened species and ecosystems in southern Africa to the benefit of all people. Member of the (IUCN).	Selective and intensive breeding of colour variant animals does not directly contribute to biodiversity conservation, and does not allow for natural evolutionary processes to take place.	DEA, 2016b

Game Rangers Association of Africa (GRAA)	An association that represents more than 1500 game rangers across Africa, from approximately 20 countries. It is a member of the International Ranger Federation (IRF)	Is against the manipulation of wild animals using hormones, artificial feeding and other selective breeding techniques to obtain animals with superior physical proportions and un-natural colour variations.	GRAA, 2016
National Association of Conservancies/Ste ward-ship of SA (NACSSA)	An association of environmentally conscious land-owners and land-users that choose to cooperatively manage their natural resources in an environmentally sustainable manner without necessarily changing the land-use of their properties. NACSSA represents ±750 conservancies in South Africa that manage about 3 million hectares of land.	 Opposes the selection of aberrant forms of wildlife for breeding purposes (e.g. colour variants). Urges government to regulate against the breeding and distribution of genetically manipulated game (e.g. colour variants). 	NACSSA, 2015
NSPCA	The SPCAs are governed by the SPCA Act 169 of 1993 which is administered by the NSPCA, constituting us as a statutory body. Over 90% of all animal welfare investigations and prosecutions in SA is led by the NSPCA.	 In the interest of human safety, animal welfare and biodiversity, we appeal to our government to ban the intensive and selective breeding of wild animals in South Africa. This type of breeding or management of wildlife has absolutely no benefit to the individual animal, the species, biodiversity or conservation as a whole. Due to the high financial value of these colour morph antelope farmers take extreme measures to protect them from their natural predators, including lethal control methods. 	NSPCA, 2015
South African Predator Association (SAPA)	SAPA represent lion breeders in SA and coordinate and promote the interests of its members with the view of establishing and maintaining a healthy and profitable predator breeding and hunting sector	 Support the breeding and hunting of captive-bred lions according to specific norms and standards; Differentiates between "canned hunting" that is not supported and the hunting of captive-bred lions (supported) Provides standards for: conditions deliberately aimed at preventing human imprinting for lions to be hunted; size of the hunting area; release period prior to the hunt; hunting methods; and misrepresentation of facts to hunting clients (hunters). 	SAPA, 2017a-b
Wildlife Ranching South Africa (WRSA)	A national association representing land-owners with an interest in game, game ranchers and breeders, professional hunters, hunting outfitters, taxidermists, game reserves and mixed farmers.	WRSA supports the breeding of colour variants. Prohibits its members from undesirable breeding practices such as: cross-breeding; breeding animals with genetically detrimental conditions, such as albinism and dwarfism; genetically manipulating species; using artificial reproductive technologies such as artificial insemination; embryo transfers and cloning – except where these can assist in the preservation of threatened species and with the explicit approval from the Department of Environmental Affairs.	WRSA, 2016

International			
African Lion Working Group (AWG)	Expert group for the promotion of comprehensive, scientifically based conservation strategies for all free roaming lion populations in Africa.	Captive-bred lion hunting does not provide any demonstrated positive benefit to wild lion conservation efforts and therefore cannot claim to be conservation.	Van der Merwe, 2016
International Union for Conservation of Nature (IUCN)	Biggest conservation organisation in the world with 1 300 members from 170 countries and support of >11 000 scientists.	 Acknowledge that sustainable, legal and ethical hunting generates income and supports human livelihoods in areas where other farming practices are less viable. Request: termination of the practice of breeding lions in captivity for the purpose of 'canned shooting' through a structured, time-bound process; restriction of captive breeding of lions to registered zoos or registered facilities whose documented mandate is as a recognised, registered conservation project; development of norms and standards for the management of captive-bred lions in South Africa that address welfare, biodiversity and utilisation aspects; and prohibition of the hunting of captive-bred lions under any conditions. Concerned that large-scale intensive and selective breeding may have direct and indirect detrimental consequences for biodiversity that will reduce the ability of eco-tourism and hunting to contribute sustainably to the economy and human well-being. Recommend: adoption of a risk-averse strategy in permitting establishment or expansion of this practice; prohibition of intentional hybridization of large wild mammals across species, subspecies or other recognised evolutionary boundaries; prohibit release of selectively bred animals into the wild until the risks are understood and can be managed; development and implementation of norms and standards for husbandry practices of intensively bred species; establish monitoring systems to document the extent and impact of these activities, and support research to provide more information to anticipate and manage risks; and develop and implement certification systems for wildlife operations to ensure transparency so that end-users know the origin of the animals they are using and/or buying. 	IUCN, 2016b; IUCN, 2016c
IUCN Antelope Specialist Group (IUCN ASG)	A specialist group of 73 volunteer members, representing 27 countries. Members include field biologists, academics, wildlife managers, captive breeders, government officials, NGO staff, and others from diverse and inter-related fields.	 Direct threat to biodiversity by risking the survival of indigenous taxa. Distortion of natural processes of evolution. Weakened resilience or reduced adaptive capacity to environmental changes. Reduced reproductive fitness. Opposes all IGM of antelopes for commercial or amenity purposes, with particular reference to: (i) hybridization of different species (ii) crossing of different subspecies 	IUCN SSG ASG, 2015

		(iii) selective inbreeding of a population	
South African National Biodiversity Institute (SANBI)	SANBI receives its mandate from NEMBA and advises the Minister of DEA on matters of Biodiversity Policy.	 The breeding of genetically inferior recessive colour morphs does not further the conservation of South Africa's wild biodiversity and therefore cannot be supported. The Scientific Authority currently views this as a low risk threat to the species that are likely to be affected and therefore does not recommend that it be legislated against, but the situation needs to be monitored. Should be discouraged or dis-incentivised. 	SANBI, 2010