Dear Reader

The last weeks were quite hectic since the forthcoming public debate in connection with the work of the panel of experts nominated by Minister van Schalkwyk made it imperative that this issue of African Indaba would reach readers just in time for the event.

The second part of the article “Hunting in South Africa: Facts, Risks, Opportunities” is directly relevant. It is a very long article, but I considered that an articulated contribution from the hunters is absolutely essential. I was reinforced when I read the biased commentary in “The Sunday Independent” (August 7th, page 8, “Time to put an end to canned hunting”). The unnamed author certainly wrote some truths, but his/her opinion that “[…] we would like to see all hunting banned and force the blood-letters get their rocks off in a way that does not involve killing animals” and the final phrase that “[van Schalkwyk] stomps on the killer khaki brigade” certainly show a distinct lack of knowledge of the topic. The same paper brought a front page article by Mike Cadman “Canned Hunting Comes Under Scrutiny”. This article is better balanced, especially with the contributions of Jokl LeRoux of CHASA and Dr. Rob Little of WWF-SA, but the author committed a serious error when he singled out Jason Bell, the Southern African director of the International Fund for Animal Welfare (IFAW) as spokesperson for what Cadman termed animal welfare organizations. IFAW is not an animal welfare, but an animal rights organization. In Kenya, IFAW has aptly demonstrated its destructive influence with disastrous results for the country’s wildlife. We must not allow IFAW to repeat this in South Africa. Another unnamed representative of an animal rights organization was cited with “pressing for the prohibition of children under 18 hunting with firearms”.

The rapid flow of events, a number of long discussions with experts and some new statistical information lead to some minor changes in the first part as published in the previous issue. These changes and additional tabulated information are reflected in the PDF-file of the complete article. Please take note. I also invite your comments and suggestions concerning the topics I discussed. Let us start a similar invigorating debate as we did already with the certification subject in the previous issues. You can download a PDF file with the complete article, inclusive of comprehensive tables and the changes in part 1, from our website at www.africanindaba.co.za (go to Archives 2005). I hope the environmental writers and opinion makers from the Sunday Independent do the same.

In this issue there are two more contributions to the certification debate. Both from seasoned conservationists and I am glad that Graham Child and Jonathan Moss found time to give their comments to the debate.

There were also a number of other contributions which I cannot publish in this Indaba due to the space swallowed by my article. Apologies to the authors for that, but I will print their articles in the next issue. The selection process was difficult, but I finally decided that the elephant management article by Marion Garai, the report about the lion demography project in Kruger National Park (which was funded completely by Conservation Force www.conservationforce.org) and the three articles which deal with rare North and North-East African Antelope species and ex-situ and in-situ conservation had some important relevance now.

What else was important in the past few weeks? I got notice of the first black rhino having been hunted in South Africa. I cannot say that I am entirely happy with the process which led to this hunt, neither am I happy that the rhino has been taken on a private game farm which reportedly measured around 500 hectares. Let us hope that this will change in future.

Please make sure that you distribute this issue to all people you deem interested in African conservation issues – it is important that we continue a fact-based dialogue!

Best regards
Gerhard R Damm, Editor

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African Indaba is a e-newsletter for hunter-conservationists and all people who are interested in the conservation, management and the sustainable use of Africa’s wild natural resources
2 Hunting in South Africa: Facts, Risks, Opportunities
Part Two (for part one see African Indaba Vol3/4)
By Gerhard R Dam

3.3 Black Economic Empowerment

The Black Economic Empowerment Act and the BEE Codes of Good Practice are of critical importance for the future of South African hunting safari operators and game ranchers. Minister van Schalkwyk said at the 2004 PHASA convention "...if we are to harness the potential of professional hunting to uplift communities through tourism, then the sector must rapidly and genuinely incorporate all communities as owners, managers, service providers and as customers. ... There are so many opportunities for BEE partnerships with communities living on communal land adjacent to game farms, with communities who have had suitable land restored to them ...".

Looking at the present structure of the South African wildlife industry, I suggest that the State too has to shoulder a considerable responsibility for a meaningful transformation. There is a complex mine-field of economic and other interests to be crossed, and taking a wrong direction may not only harm national conservation efforts and economic prospects of the sector, but also create social tensions.

Most, if not all of the private stakeholders in this industry are small individually- or family-owned economic entities. Game ranchers usually own their land and have made considerable investments on improvements and continue to do so. Hunting safari operators - especially the established older firms - either have a substantial “good will” with their client portfolio or own part of the land they are hunting on, some have both. They will be more than reluctant to enter into BEE arrangements, if those mean parting with a considerable equity percentage.

On the other hand some frequently advertised measures (sometimes these measures look more like forced promises) as skills transfer, opportunities for wealth creation, sponsorships, etc are too slow to make any quick impact. The wildlife industry, politicians, provincial and national parks boards, and last not least the mainstream conservation NGOs therefore have the huge joint responsibility to find workable innovative solutions fast.

Basically there are three scenarios for socially sustainable BEE:

a) **Private/Private Partnerships**: Individual players in the wildlife industry (game ranch owners, hunting safari outfitters, game capture companies, etc) form private partnerships with black South Africans whereby the latter pay fair market value for their share in the company equity. This will, however, only bring a very limited number of already well-heeled black South Africans into the game.

b) **Private/Community Partnerships**: Private Game ranch owners and/or private safari operators enter into arrangements with landowning communities with the partners contribute industry related products, know how, services or assets to the BEE company

c) **Private/Community/Public Partnerships**: This will be the most promising route for fast success in Wildlife Industry BEE: Existing private companies and/or individuals with expertise in game ranching, safari hunting and ecotourism team up with mainstream black business, rural communities and national and provincial entities to boost transformation. Government could provide incentives like land and/or game for controlled hunting for those who demonstrate 100% BEE scorecard achievements.

In all three types of partnerships the creation of viable conservancies will play an important part to eventually reach the twin goals of significant BEE and biodiversity conservation in South Africa. The state has the responsibility of creating the legal frame work and positive incentives, the removal of perverse incentives and most importantly fostering a groundswell of general public support towards a policy of “Incentive Based Conservation (IBC)” to reach a definitive win-win situation for all.

The professional qualification and standards of the hunting companies and their professional hunters, especially new ones with BEE background must stand up to this task. Government should use existing structures like the Professional Hunters Association of South Africa (PHASA) to establish industry standards and adequate training programs with considerably more depth than those existing. There are no 10-day shortcuts to enter the hunting profession. PHASA, SETA and a panel of experts must work out an exacting curriculum, drawing for example from the successful history of PH training in Zimbabwe. Collaboration of industry and government partners will result in the development of business tools, kits, manuals and certification systems. Conferences, workshops, seminars, etc. will reinforce, deepen and expand the knowledge base. Potential partners would be WWF-SA, the Southern African Wildlife College and international hunting advocacy or organizations like Conservation Force and the International Council for Game & Wildlife Management (CIC). PHASA and the international hunting community could show their commitment by supporting and partially funding such training. A nationwide search and selection process for a pool of promising BEE candidates and their rigorous training covering all aspects from economics, hunting, client relations and social skills is fundamental for success of these efforts.

Some years ago, PHASA initiated the “PHASA Conservation Fund”. This initiative is based on levying a $10 surcharge on all trophies obtained by visiting hunters. Unfortunately PHASA has no means to oblige its members to subscribe to this initiative. Therefore only a minority of far-sighted and socially concerned members contributed to the fund. Nevertheless, the PHASA Conservation Fund was able to donate 100,000 Rand to the Southern African Wildlife College in 2004. If the Government would enable PHASA through appropriate legislation and make membership for all professional hunters and outfitters compulsory, the PHASA Conservation Fund could raise around 500,000 to 600,000 dollars annually (between 3.5 and 4 million Rand). This money could be used for social extension and community conservation projects. The South African amateur hunting associations could also con-

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3 What Sustainable Use is, and what it is not
By Dr Jon Hutton, Chair, IUCN SSC Sustainable Use SG

Summary

- People have always used natural resources and will continue to do so.
- In situations of overexploitation the conservation community has followed one of two paths: To stop use or to impose the management needed to deliver sustainable use.
- For many of the world’s rural populations it is not possible to stop use and therefore the challenge is to push for sustainability in many contexts.
- Unfortunately, arguments about sustainable use have become more and more polemic. This is due in part to confusion about what we mean by ‘Sustainable Use’ and our failure to distinguish between, and label, the different concepts within the term.
- Different communities mean very different things when they talk of ‘Sustainable Use’. The IUCN adheres to the guidance presented by the CBD when it uses the term only in the context of living wild resources. However, others appear to use the term as a synonym for sustainable development.
- The sustainable use of resources subject to exploitation is an imperative. Under some circumstances Sustainable Use may also be a conservation strategy that seeks to conserve specific resources and prevent the conversion of land uses that are less compatible with biodiversity conservation.
- The IUCN policy seeks to reflect the argument that sustainable use can be a conservation strategy, but conflict may be reduced if different labels are applied to different concepts.

Introduction

This presentation derives from our observation that the term “sustainable use” means very different things to different people and groups of people. Within the IUCN we talk only of the sustainable use of living, wild resources. However others, including the European Commission and perhaps on occasion the German Government, appear to use the term as a synonym for sustainable development.

Even within the IUCN, where the scope of the concept of sustainable use is reasonably clear, there is disagreement over what it precisely means as well as how to achieve it. This disagreement is, at least in part, the result of the confusion of the different concepts that are found under the umbrella of “sustainable use” and in our failure to derive adequate terminology to distinguish between these concepts.

Sustainable Use is an Imperative

Human society has always depended on the extractive use of wild species and ecosystems. With the domestication of species and the steady conversion of land for agricultural purposes that dependence may have decreased, but the consumptive use of wild species is still commonly the foundation for human survival in the developing world. And when we consider fisheries and forestry it is clear that the exploitation of wild species is still of enormous importance to many of the World’s largest and most industrialized economies as well. In Tanzania a recent study of six typical rural villages has demonstrated that 58% of household income is derived from the harvesting and sale of wild honey, wild fruits, charcoal and fuel wood (Monela et al. 1999).

Where human well-being is markedly dependent on biodiversity resources, the exploitation of wild species and ecosystems is not going to stop. Indeed, extraction rates are likely to rise for the foreseeable future as human populations increase and people in developing countries seek to meet their needs from “free” wild resources under a range of adverse economic and environmental conditions. At the same time, however, it is clear that in biological terms many, if not most, wild resources are already being over-exploited.

The prognosis is an unhappy one, both for the biodiversity resources that are being overused and for the people who have constructed their livelihoods around the exploitation of these resources.

In response to this scenario, some IUCN members argue that the best strategy to conserve nature is to leave it alone and not use it at all. However, this view ignores reality and we think that there is a broad consensus amongst IUCN members that nature is dynamic, that natural ecosystems include people, that people use natural resources and that nature has to be managed. Furthermore we suggest that the key challenge in a world where use is inevitable is to introduce the management systems necessary to increase the likelihood that use will be biologically sustainable.

The IUCN concept of sustainable use is therefore completely in accordance with the definition in the Convention on Biological Diversity which is that sustainable use “means the use of components of biological diversity in a way and at a rate that does not lead to the long-term decline of biological diversity, thereby maintaining its potential to meet the needs and aspirations of present and future generations”.

In this narrative “sustainable use” is a clear goal to strive for. If we have any interest in resource conservation - whether our personal or professional focus is human welfare or biodiversity conservation - we should all be concerned with the art and science of sustainable use in which, drawing from IUCN’s own mission we will seek “to ensure that any use of natural resources is equitable and ecologically sustainable.” It should be the least controversial and most pivotal of all the work of the IUCN.

This is not the case, of course. Instead sustainable use has probably been the most controversial of IUCN’s spheres of activity. We accept that part of this may be due to the fact that there are some, predominantly nature-centered, IUCN members who believe that ending use is not only an option – it is the preferred option. However, we suggest that the main reason is because there is widespread confusion over what sustainable use is – and what it isn’t. This confusion is compounded by inadequate and inappropriate terminology.

Sustainable Use isn’t….

Sustainable use is about managing the use of wild species and...
What Sustainable is, and what it is not

ecosystems so that it falls within biologically sustainable limits:
1. Sustainable use does not require that all species be subject to use.
2. It doesn't require that all species be valued only in financial terms.
3. It isn't consumptive use – neither commercial nor subsistence.
4. It is not about the harvesting of charismatic megafauna – whales, elephants, seals and the like.
5. It is not wildlife trade.
6. It is not about poverty relief.
7. It doesn't require that benefits of use be equitably distributed.
8. It doesn't require that nature be managed by rural communities.
9. It is not about creating incentives and turning exploitation into a conservation tool.
10. It is not an alternative to protected areas.

In our experience, one of the commonest confusions is that sustainable use is about creating incentives and turning exploitation into a conservation tool. It is true that in some parts of the world (Southern Africa for example) the sustainable exploitation of economically valuable species is part of a positive feedback system which provides conspicuous incentives for the conservation of savanna ecosystems that might otherwise be converted to agriculture. But where this happens, good management of exploited populations is delivering a welcome bonus. In many cases the first challenge is to make exploitation sustainable, and this is hard enough without always tagging on an additional requirement that sustainable use must provide broader incentives and benefits.

Sustainable Use and the IUCN

In some conservation circles sustainable use remains poorly understood and even contentious. Since it is inconceivable that any conservationist would object to the notion, as laid out by the IUCN policy statement on sustainable use, we assume that the controversy lies with notion that exploitation can be a conservation tool. It is not about creating incentives and turning exploitation into a conservation tool. This is probably because exploitation and commerce make and reduce conflict if we separated out some of the different (but connected) concepts currently nested within ‘sustainable use’?

Conclusion

There may be a case for re-labeling some of the concepts nested within ‘sustainable use’ as ‘incentive-driven conservation’, “Conservation through exploitation” or, in those cases where commerce is involved, ‘market-led conservation’. By starting to separate out the different concepts that are currently nesting within ‘sustainable use’ we would be promoting clarity and, hopefully, reducing conflict as we strive to conserve our natural world.

4 Swayne's Hartebeest in Ethiopia

By Befekadu Refera

Ethiopia is one of the few countries in the world, which possess a unique and characteristic fauna with a high level of endemism (World Conservation Monitoring Center (WCMC), 1991). Ethiopia is endowed with extensive and unique environmental conditions ranging from Ras Dejen (altitude 4600m) to Dallol (altitude 100). This large altitudinal and latitudinal range makes Ethiopia an ecologically diverse country and home of several unique habitats. 277 Mammalian species are known in Ethiopia of which 31 Mammals species are endemic. Swayne's Hartebeest is one of the 31 endemic mammals of Ethiopia. However, due to manmade and natural resources degradation processes, these wildlife resources have largely been restricted within a few protected areas of the country. These include 9 National parks, 3 Sanctuaries, 8 Game Reserves and 18 Controlled Hunting Areas. Except few, most of the protected areas are found only on paper.

Background Information about Swayne's Hartebeest Alcelaphus busephalus swayeni (Amharic: Korkay):

The hartebeest was first named by Pallas in 1766. Hartebeests belong to Class Mammalia, Order Artiodactyla, Family Bovidae, Subfamily Alcelaphinae, Genus Alcelaphus. The hartebeest is described as probably the strangest looking antelopes as they appear to be part buffalo, part horse, and part antelope. It is no wonder that its scientific name is derived from the Greek word alke (the elk), elaphos (a deer) and bous (a cow), aptly reflecting the strange appearance of the Alcelaphinae antelopes. The harte-
Continued from Page 5

4 The Population Status of Swayne’s Hartebeest in Ethiopia

beest, Alcelaphus buselaphus, was originally found in grassland throughout the African continent (Nowak, 1991). It ranged from Morocco to northeastern Tanzania and south of the Congo; and also from southern Angola to South Africa. Hunting, habitat destruction and foraging competition with domestic cattle have drastically reduced its range. Now the hartebeest is found only in parts of Botswana, Namibia, Ethiopia, Tanzania and Kenya.

There are now seven recognized subspecies. Out of the seven subspecies, the Tora hartebeest of the Sudan and Ethiopia, and Swayne’s hartebeest of Ethiopia are endangered because of small and declining populations. The bubal or northern hartebeest, which ranged north of the Sahara, slipped unnoticed in the early years of the 1990’s. The horns carried by both sexes, spread into the wide graceful brackets. They are heavier in the males with more pronounced knobs. Horn shape and growth vary with age, but at maturity the horns generally diverge widely from the pedicel and the points are usually turned back.

By the 1960s Swayne’s Hartebeest was thought to be extinct in Somalia and remained in only very limited numbers in Ethiopia (Bolton, 1973). At present Swayne’s Hartebeest are found only in four localities in Ethiopia. Namely, Awash National Park, Senkele Swayne’s Hartebeest Sanctuary, Netchisar National Park and Mazie Wildlife Area. In May 1974 the Ethiopian Wildlife Conservation organization (EWCO) caught and translocated 210 hartebeest from Senkele. 90 of these animals went to the Awash National Park and 120 to Netchisar. Unfortunately none of the translocated animals were marked for later identification and detailed monitoring of the eventual success of the operation was not possible. It appears, however, that only few of the translocated animals have survived (Stephenson, 1975; Tesfaye Hundessa, 1997).

This animal was previously found in both Somalia and Ethiopia, is now restricted only in Ethiopia. The Status of the animal is classified as “imminent danger of extinction” by IUCN (IUCN, 2002). The Swayne’s Hartebeest are in greater danger of extinction now than any other time in the past. Its range in all over four sites in Ethiopia, threatened by further loss of habitat for the sake of expansion of agriculture and livestock overgrazing. Although poaching, illegal hunting and uncontrolled wildfire are the main threats to the survival of the animal. In 2001 around Senkele Swayne’s Hartebeest sanctuary and in 2002-2003, around Awash and Netchisar National Park as well as around Mazie Wildlife Area ground total counts of wildlife both at wet and dry seasons were performed. The total count of the Swayne’s hartebeest of in above mentioned areas result showed that the maximum number of Swayne’s hartebeest counted was 550 during the dry season and the minimum counted number was 468 during wet season. The census result of Swayne’s hartebeest of four protected areas showed that there is unequal sex ratio in the population. The ratio of Adult Male to Adult Female was 1:1.9 and 1:7 during wet and dry seasons respectively.

Conclusions: In 1891-2, when the Swayne’s hartebeest was discovered by Brigadier-General Swayne, Somaliland, the plains were described as “covered with hartebeest, 300-400 to a herd a dozen or so herds in sight at any time”. This expression seems like a fictitious but it was true. Through time this condition had changed the species is already extinct in Somali land and Ogaden area of Ethiopia. Nowadays, Swayne’s hartebeest found only in four localities in Ethiopia. In Awash National Park (20-25), Netchisar National Park (61-77), Senkele Swayne’s hartebeest Sanctuary (152-164) and Mazie wildlife Area (242-277) with a total of 475-543. From these four areas, the 2002-2003 Swayne’s hartebeest census result showed that Mazie holds the better and viable population. If better care and conservation measures are given, their population number can rebuild and increase with in a short period of time. This is a good indication for survival of the Swayne’s hartebeest. Hence, Mazie wildlife area can be said “the hope-land” for the critically endangered Swayne’s hartebeest survival in the globe.

Source: 5th Annual Sahelo-Saharan Meeting, Tunisia, 2005

5 The Addra and Mhorr Gazelles (Gazella dama ruficolis and G. d. mhorr)
By Edward Splevak, Ph.D. (edited for space)

Dama gazelles (Gazella dama) once ranged across the entire Sahara and Sahelian region from Morocco in the north and Senegal in the west to the Sudan in the east. Several subspecies have been described; currently 3 subspecies are recognized, G. d. dama, G. d. mhorr, and G. d. ruficolis. All three species are highly endangered. The mhorr gazelle is extinct in the wild and only exists in captivity and in fenced reserves and national parks within range states. Both G. d. dama and G. d. ruficolis exist now only in small isolated populations in the wild. No recent surveys have been undertaken across the range but estimates of the surviving wild population is around 1000 individuals. With there disappearance in the wild possibly the only hope for this species survival is in zoos and protected breeding reserves. However, only the addra (G. d. ruficolis) and mhorr (G. d. mhorr) gazelles exist in captivity and these populations may not be secure.

Addra Gazelle: In North America the addra gazelle has been maintained in zoos since the importation of 22 wild caught individuals from Chad in 1967. The gazelles bred well in captivity and there are now 154 individuals in zoos with many more in private hands including ranches. This subspecies has been maintained for almost 40 years in zoos however the records maintained by individual institutions have been very poor, inadequate, or nonexistent.

Mhorr Gazelle: The mhorr gazelles in zoos are descended from a small group of 2 male and 10 female gazelles from the southern Spanish Sahara. In 1981, the Zoological Society of San Diego imported one male and three female mhorr gazelles. The second importation occurred in 1985 when the Zoological Society of San Diego imported one male and one female from Munich Zoo. The
Status of Addra and Mhorr Gazelles

First birth of a mhorr gazelle in North America occurred in 1982 at San Diego Zoo. The North American population is descended from these 6 animals representing 7 of the original founders to the captive population. The current population size is 87 distributed among 11 institutions. This subspecies has been maintained for 23 years in North America and compared with addra gazelles the records maintained have been very good with only one animal having unknown parentage. As with many endangered species there are still opportunities for conservationists to make a difference in their survival. For the captive populations of addra and mhorr gazelles several recommendations can be implemented to help ensure that they are around for generations to come:

1. Develop a World Herd Strategy for Mhorr gazelles, i.e., combine SSP and EEP databases for analyses to better determine the overall genetic health of the species and work with other regions to develop a management strategy. This is currently being done with addax and scimitar-horned oryx.
2. Attempt to clarify unknowns within the Addra database in order to better estimate the genetic diversity and long-term viability of this population.
3. Expand the number of holding institutions for Addra and Mhorr Gazelles within the SSP. Get more institutions involved in the conservation of these species.
5. Identify potential range country captive breeding facilities and additional/potential reintroduction sites.
6. Clarify subspecific/taxonomic designations.
7. Identify additional potential founders (if any) held in Gulf State or Range State collections to increase levels of genetic variability.

Source: 5th Annual Sahelo-Saharan Meeting, Tunisia, 2005

Center for Sahelo-Saharan Wildlife Recovery

http://www.stlzoo.org/wildcareinstitute/antelopeinthesahelosaharan

The Sahelo-Saharan region is the fragile zone where the true desert of the Sahara meets the short, dry grassland of the Sahel in Northern and Western Africa. This region spans 14 range countries. A unique complement of flora and fauna has evolved to thrive in this harsh environment. The majority of this region's antelope species such as Addax, Cuvier's gazelle, Dama gazelle (Mhorr gazelle subspecies) and Slenderhorned gazelle are critically endangered. One species, the Scimitarhorned Oyx, has already gone extinct in the wild. Poor land use practices and other human activities may be responsible for the unprecedented expansion of the Sahara into previously productive grassland habitats. These changes, if left unchecked, are likely to have worldwide climatic consequences.

Desert ecosystem conservation doesn't command the same degree of international attention as other ecosystems. Compared to other regions of the world, Western and Northern Africa are often overlooked for international aid to address conservation issues. The 14 Sahelo-Saharan nations have expressed their interest in conservation of desert antelope and other wildlife by signing the Convention on Migratory Species treaty in 1996. Large populations of desert antelope species are found in zoos worldwide and could serve as seed stock for reintroducing animals back to the wild, once the root causes of their decline are understood and addressed. The Saint Louis Zoo maintains a Center for Sahelo-Saharan Wildlife Recovery to provide leadership in the conservation of Sahelo-Saharan wildlife. It will take a multidisciplinary approach to addressing wildlife and habitat conservation in the region. Areas of focus include:

Conservation Science: Field research identifying the root cause of wildlife/habitat decline and identify methods to reverse this trend. Studies in such diverse disciplines as population dynamics, ecology, habitat assessment and anthropology will provide information to target conservation efforts.

Wildlife Recovery and Management: Projects such as habitat restoration, establishing captive release sites, reintroduction of animals to the wild, and monitoring and managing the resulting wild populations.

The Human Element: Successful conservation programs take into account the needs of humans sharing the environment. Providing people with alternatives and an economic incentive makes them more likely to embrace changes in behavior that will support conservation. Projects in this area include conservation education, developing ecotourism, creating conservation-related jobs, providing training to empower people to be good stewards of their natural resources, developing alternative resource-use practices, and political lobbying for protection of the environment.

7 More On Certification

By Graham Child (former Director, National Parks and Wildlife Management, Zimbabwe)

Congratulations on an interesting and informative Newsletter. Herewith a few comments from and old campaigner on articles in African Indaba Vol 3 #4 of July 2005. The issue contains much of interest and although most articles raise issues worthy of debate, I will limit myself to three:

Thoughts on Certification:

I generally agree with most of what my old friend Ian Parker has to say, but in this article he has defined “certification” too narrowly to mean bureaucratic licensing processes. I agree that these are mostly anachronisms, a waste of effort and an invitation for corruption, but “certification” can apply to auditing or to defining how standards are met and in this sense may be useful to improving management, in this case the management of trophy hunting. We are used to accepting certification of successful financial audits, but not yet accustomed to the idea of similar verifi-
cation of technical performance in, say biological management. This omission is probably a fundamental reason for the failure of global conservation and, incidentally, many other Government services such as health care. Using trophy hunting as our example, certification could be used to guide market forces so they encourage better hunting management. CIC and SCI could emulate the IMF and World Bank in the way they certify national economies, by certifying hunting managements that are not corrupt, but are ecologically and economically sound, and by encouraging their members to purchase only such hunting. Between them the two organizations can influence the lion’s share of the global trophy hunting market. It is high time both organizations began to worry less about the present and more about the future and revise their strategies that are as flawed as may animal rightist groups. Their aim, like that of any progressive business, should be to provide their members with as much or more quality hunting in the future as they have to-day.

Lessons from Zimbabwe:

We implemented most of Terry Cacek’s suggestions for fast tracking Africanization of the hunting industry in Zimbabwe in the first 6 years after independence in 1980. There were a number of integrated handicaps against success of which the two most important single factors were probably: firstly Western cultural mores and secondly African political impatience (which Terry does mention). Having been brought up on a culture of “white hunters” and learning about nature from the “natives” most trophy hunting clients opted for white PHs while many ordinary game viewing tourists were happy to be led by black guides. As a result of these market forces the proportion of black PHs increased much more slowly than that of black non-hunting tourism guides, who probably increased more rapidly than anywhere else in Africa.

Black political impatience retarded progress because the politicians did not trust their officials. They would not accept that tour operators at all levels had to be trained and that we had to retain a certain level of skilled man power to train the new incumbents of operators at all levels had to be trained and that we had to retain a certain level of skilled man power to train the new incumbents of operators at all levels. They also failed to understand that the sector was growing quickly while the white population was declining rapidly so there could never be enough whites to keep the blacks out.

As important as these two factors were during the first decade after independence, they paled in to insignificance compared with what came later. Already Zimbabwe’s economy had begun to acquiring the characteristics of a pirate economy where in order to prosper one has to be a good buccaneer and capture what one wants from those who have worked to produce it. This was greatly accentuated by the ruling party’s fear of losing power. Destruction of the national economy simply took all sectors, in its approach, particularly as it continues to rely on centralized State control. It fails to recognize the role of the landholder whether this is the State a Community or a private individual, and the importance of proprietorship and price (the two big “Ps”) in providing interacting incentives to encourage the sustainable use of resources. The State cannot drive landholders (other than itself) and should concentrate on providing an enabling institutional environment for landholders to use their resources profitable and sustainably, much as we did in Zimbabwe from 1975 (See Child, 1995, Wildlife and People: the Zimbabwe success).

No domestic species has become extinct because these species are owned and can be traded freely with minimal State interference. This does not apply to wildlife which began capturing space from domestic animals some 35 years ago mainly in response to the declining terms of trade for red meat and the improving terms of trade for tourism and hunting. It is now seldom possible to produce red meat from domestic animals sustainably and profitably where the annual rainfall is under 760 mm (i.e. in some 75 % of Africa south of the Sahara) and where, under Zimbabwean conditions in the early 1990s, the return from game per unit area was some 3 to 5 times that from ranching domestic animals.

Farmers and ranchers are sensitive economic barometer and will continue to use wildlife while it is economically expedient to do so. Any artificial costs such as those imposed by Government regulation to conserve species are likely to be counterproductive, unless requested by wildlife producers to protect their industry as they make game less competitive. Furthermore, their intentions can not be enforced by the State.

The call for better statistics is timely as is the warning against practices like hunting “placed” game as the future of game depends on its comparative economic advantage over other uses of the land and this rests heavily on its “charismatic” value from being truly wild.

Every time we move animals, encourage freaks like black springbok, or otherwise manipulate populations we erode their true wildness and undercut their charismatic value which adds economic tiers to an animal production program through services like hunting or guiding. What we need to bear in mind is that hunting is a service that markets animals in a way the market wants now and in the future, and we need to maintain standards to that end. We should also recall that, with minor exceptions, trophy hunting can seldom threaten a population biologically, although over hunting may undercut the financial profitability of using it, usually for a fairly restricted period.

Financing conservation of species and pricing hunting are also tops raised that need to be debated, within the parameters of a better public understanding of the hunting industry and the economics that underpin nature conservation. These are complex issues that are generally poorly understood by both wildlife managers and the public, including hunter.

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African Indaba is a e-newsletter for hunter-conservationists and all people who are interested in the conservation, management and the sustainable use of Africa's wild natural resources.
8 Further Thoughts on Certification: The Potential for Deregulation

By Dr Jonathan Moss

Once again Ian Parker demonstrates that his grasp of both the historic and current debate over wildlife utilization in East Africa is second to none. He has an immense amount to teach those of us that form the next generation of African conservationists – a generation that must do all it can to avoid the trap set by so much well meaning Western ideology, where consumption is dismissed out of hand. Such dismissal only contributes to the continuing loss of ecosystem integrity, as wildlife continues to constitute more of a liability than an asset to those land owners and communities upon whose tolerance it ultimately depends.

However, I am concerned that Ian dismisses certification as a potentially valuable conservation tool all too readily. Certification is not about red tape, permits, or “bits of paper” – if it is then an immense opportunity has been lost. Rather, certification is a tool that holds the potential to reduce overall reliance on regulation – the potential, ultimately, to justify some degree of deregulation.

I am convinced that the future of wildlife in Africa will increasingly depend on the private sector. In Kenya, wildlife populations continue to expand almost exclusively on private land, and the private sector has the capacity to address conservation challenges in a manner that the constrained resources of the public sector simply preclude.

The private sector’s efficiency and consequent ability to generate and access finance to support conservation is primarily driven by the market-based arena in which it operates. And it is through its dependence on market forces that certification holds the potential to engage the private sector in conservation as never before. For the key to certification is that it looks primarily to the market itself to provide regulation – not to national policy or legislation.

I suggest wildlife conservationists would be wise to learn all they can from the success of certification in the tropical forest sector. The Forest Stewardship Council (FSC) was established in 1993 to develop internationally recognized standards in sustainable forest management. Over the past 12 years FSC standards have been adopted across the globe and are applied by an increasingly wide number of third party certifying organizations, including the Soil Association (Woodmark), Rainforest Alliance (SmartWood) and SGS Forestry (Qualifor), all of which employ the FSC trademark. Further bodies, such as the Tropical Forest Trust, link certified sources of timber with markets that recognize the increasing demand from consumers for a product with an accepted environmental label.

Forest certification has the twin objectives of working as a market incentive to improve forest management and working to improve market access and share for the products of such management. As certification is such a market-based instrument, participation in certification programs is, and must be, voluntary. At no point are forest producers forced into certification – it is simply increasingly in their interest given the level of awareness of the need for sustainable forestry in the market – a market that demands, and is willing to pay for, an internationally recognized environmental trademark.

Surely such potential for market-driven demand also exists amongst the hunting fraternity. Surely it forms the basis to Craig Packer’s proposals with regard lion, which I applaud. Surely it is to our clients that we should be turning, in the hope of generating a real demand for certified hunting operations – operations that demonstrate sustainability, monitoring, transparency, and the provision of real benefits to local communities.

But further, surely the establishment of internationally recognized wildlife stewardship standards can and should apply to far more than simply the hunting sector. Photographic tourism can and does immense damage to the functional integrity of natural ecosystems when poorly managed – and can and does contribute all too woefully to those local communities that determine the future of many wildlife populations. Standards are beginning to creep into the “ecotourism” sector, such as those applied under the rating scheme developed by Kenya’s Ecotourism Society, and “responsible tourism” awards are issued annually in recognition of the fact that there is a significant market that demands assurance that they are contributing to an environmentally and socially sustainable operation.

So I believe we must broaden the debate, and I suggest the time is right for the formation of a Wildlife Stewardship Council, to establish standards across the board. I urge that we look to certification as a means of using market forces to regulate our use of wildlife – both consumptively and non-consumptively. I urge Ian to lend his support. We have the opportunity as never before – and the forest sector has shown us the way.

Jonathan Moss is Executive Director of the Laikipia Wildlife Forum (www.laikipia.org), and a Director of Conservation Capital (www.conservation-capital.com), a company that applies private sector principles to securing and structuring finance for conservation.
10 True Game Ranching

By Cleve Cheney

It is enlightening to examine game ranching from a historical perspective and compare its origins to where it has become today. Historically, game ranching was an alternative to stock farming, with the emphasis on fresh meat production and its by-products of biltong, skins and leather. Given the prevailing conditions in Africa it was a viable and more realistic option. The production potential of some game species was high, meat quality was excellent and healthier because of a lower fat content, and game was more resistant to endemic diseases and parasitic infestation than cattle and other domestic animals with a European ancestry. Stock theft was also an issue of increasing concern. It is much easier to herd a bunch of cows or sheep into a truck when trying to steal them than it is wild game.

Then there was also the option of selling off excess game stock to other game farmers or making it available to hunters. I remember seeing a documentary film in the early 1980s of a cattle rancher turned game rancher in Zimbabwe, whose game ranching enterprise was a huge and resounding success. That was of course until the country took its downward slide into the miserable state it now finds itself.

Somewhere along the line things changed, however. An emerging and apparently very lucrative ecotourism market seemed too good an opportunity to miss and landowners, many of whom were cattle and stock farmers, decided to board the gravy train. Of course, there were also the astute businessmen with surplus cash in hand, a taxman to avoid and a quick eye for a quick buck, who decided to enter the fray, buy a patch of land, stock it with some game and become "game farmers" or game ranch owners. Unfortunately, they missed the point.

They wanted to make money from ecotourism using game ranches as the means to their end and built expensive five-star lodges (which messed up the bush), established roads all over the place (which messed up the bush), built an airstrip (which messed up the bush), ordered a fleet of Landrover game drive vehicles and hired a bunch of "jeep jockeys" to drive across the veld in pursuit of the "big five" with crowds of noisy, camera-snapping tourists (which – yup, you guessed it – messed up the bush).

That is neither game ranching nor ecotourism. When will the "wannabe" Londolzi/Singita/Sabi Sand types realize that they can never compete successfully with these areas or places like the Kruger National Park. Many owners of expensive game lodges on so-called "game farms" or ranches are scratching their heads in perplexity and asking themselves searching questions as to why their game ranch ecotourism ventures are failing. The answer is that there are too many people wanting to get a slice of an ever-shrinking ecotourism cake. Take a look in the smalls columns of a well-known local magazine that focuses on wildlife ecotourism. Literally hundreds of destinations are offered in South Africa, each claiming to be "a little piece of true, wild Africa" and offering luxury accommodation, game drives and game walks. It’s time we took a wake-up call.

The ecotourism market is too fragile, fickle and unpredictable and is not worth taking a chance on in the long term. Escalating oil prices, weakening of the dollar, volatility in the Middle East, instability in Africa, and fears of international terrorism will continue to have a detrimental effect, despite what the politicians with their rose-tinted spectacles and political smooth talking might have to say. The facts speak for themselves.

It’s time we went back to true game ranching. There will always be a demand for meat in Africa. Quality leather products will always sell. There is always a market, both locally and internationally, for biltong and venison. The true game rancher also has the option nowadays of breeding with rare game species. And of course there is the hunting of surplus game, for which there will always be a huge demand if it is marketed honestly, priced fairly and packaged correctly (which it currently is not). If game ranching is practiced as it was intended to be it can offer a good living to the landowner. Certain criteria in terms of ranch size, stocking rates and so on must be met in order to make it a viable and sustainable venture. To anyone with a little savvy it should have become clear by now that the "ecotourism" game ranch is doomed to failure and it would be a wise move to stop "flogging the ecotourism horse, which is in the process of dying", and look to more realistic ways of utilizing land stocked with African wild game. Let us therefore put the game ranch ecotourism pipe dream to rest and reconsider other options. It is an established fact that:

- While cattle are potentially more productive than wild ungulates in terms of meat production per animal, higher wildlife stocking rates will produce a higher income than cattle. Cattle eat only grass so the available browse (bush and trees) on the land goes unutilized. By combining both grazing and browsing wild ungulates, production potential is optimized.
- Game ranching (not the ecotourism-lodge type, but proper game ranching) involves less expenditure and greater profitability than cattle ranching.

As paradoxical as it might at first appear, proper game ranching, where game is produced and harvested as a commodity much like domestic cattle, holds a greater future for Africa’s wildlife than the "ecotourism game ranch" fiasco, which is regarded by the masses (and rightly so) as nothing more than a playground for the rich and supported by the political pressure of short-sighted and unenlightened animal rights groups, who are often out of touch with the reality of Africa. I have also seen that commercial ecotourism is more destructive to the natural environment than hunting or proper game ranching, I have no doubt whatsoever.

My advice to current game ranch owners is to cut your losses (the vast amount of money you wasted on the fancy lodge, road infrastructure, airstrip etc.) and instead view the experience as a steep learning curve. Hire yourself an experienced game ranch manager who knows something about wildlife management (theoretically and practically), pay out severance packages to the lodge staff, nature guides (“rangers”), and marketing personnel and get back to real game ranching – this is the safest long-term option.

This article was first published in "Africa’s Bowhunter", Vol6/4 (www.africasbowhunter.co.za) in Cleve Cheney’s series on Game Ranch Management. African Indaba extends thanks to author and publisher for permission to reprint this article.
10 Managing Elephant Populations: The Perpetual Indaba
By Dr Marion Garai (EMOA)

Who is EMOA? The Elephant Management & Owners Association (EMOA) has been in existence since 1994, when the demand for elephants originating from the Kruger National Park’s culling operations became a popular prospect for private landowners and other state owned reserves wishing to acquire elephants. In addition to their value as a tourist attraction, the acquisition of elephants was thought by many to provide solutions to several perceived problems, such as:
- Reducing the KNP overpopulation and preventing culling, therefore “saving” lives.
- Creating new founder populations in areas where elephant historically occurred.
- Allowing for more holistic management and conservation in other regions by introducing elephants.
- Introducing a “natural” tool to combat bush encroachment.

EMOA currently has 65 private and State members, which represents over 75% of the registered elephant managers and owners in South Africa. The EMOA Committee includes private elephant owners or managers, SANParks, field and University based conservation scientists and WWF South Africa.

Why the need for EMOA and what does it do? In the early days of translocation there were no guidelines on important issues such as site selection, site preparation, practical translocation issues, resultant elephant behaviour and elephant management on smaller reserves. EMOA focused its efforts on these noticeable gaps and, drawing on the collective scientific expertise of both members and other dedicated conservationists, began collecting and disseminating information, providing assistance and advising on proposed translocations, as well as giving new owners and managers the opportunity to exchange ideas and experiences through newsletters, workshops and discussion groups.

EMOA published several management guidelines and information documents in the past 10 years. The good relationships forged through interactions with the provincial conservation agencies, SANParks and other parastatal and governmental bodies made EMOA a leading elephant organization in South Africa.

In the last few years the demand for elephants has waned considerably and EMOA is now focusing on more general management issues, such as population control, bridging gaps between the academic world and management and promoting the idea of a national strategy plan for elephant management.

During this past 10 years, EMOA has held 8 workshops on topics related to elephant research and management. Last year saw the 10th anniversary of EMOA which was celebrated with a 3-day symposium and workshop comprising some 150 delegates and over 30 presentations, including active participation by visiting scientists from Asia, USA and Europe.

EMOA’s views on hunting, culling and ivory trade: The 2004 symposium and workshop showed clearly that members prefer long-term non-consumptive solutions to the burgeoning elephant populations, but there is overall agreement that immediate actions need to be implemented on many reserves to deal with elephant impacts on associated biodiversity. In this respect therefore, EMOA endorses the concept of ethical, sustainable utilization within the requirements of biodiversity conservation. EMOA therefore supports the ethical hunting of bulls and limited, controlled ivory trade and where no alternative option is available and it has been proved ecologically necessary for the survival of biodiversity of the reserve by professional ecologists, selective culling of elephant, if undertaken in an ethical and professional manner.

Localized elephant population control should to be implemented where necessary, using all available tools and through proper scientific consultation. Fundamentally, culling cannot be viewed in isolation: it forms an integral part of the management process and is a response to monitoring indicators within ecosystems. Adaptive management as applied in conservation undertakings includes an element of learning how systems react to management input. Political and sentimental interventions in decisions on culling undermine the management process and hamper the effective and responsible management of ecosystems upon which the elephant are dependent and within which they interact. These often emotional interventions interfere with necessary management by the very wildlife professionals who have ensured the success of elephant conservation in Southern Africa.

Why are we sitting with an elephant problem? In the early 90s translocation seemed to be the answer to all elephant related problems. In the ensuing enthusiasm nobody foresaw that ten to twenty years later, the elephants that had so successfully been translocated and professionally managed, would reproduce at an alarming rate. Many smaller and some larger reserves which provided range to translocated elephants now have burgeoning elephant populations (some increasing at the rate of well over 10% pa) with carrying capacities being challenged and impacts on biodiversity approaching the limits of acceptability. We now have to mend the mistakes of the past.

The burgeoning elephant populations on many reserves and the recent postponement of the culling decision by Minister van Schalkwyk, have once again incited heated debate on culling. One of the basic problems perceived by EMOA is a lack of consistency of elephant management policies between Provinces, creating additional problems and diverse levels of implementation and management of elephants. To this end it is high time that a National Strategy is developed for the entire South African elephant population, which takes into consideration that biodiversity is the fundamental issue at stake and that any strategy must be based on retaining or re-establishing biodiversity.

In the past, management actions were often implemented as a “damage control” strategy. A long-term National elephant management strategy must be developed to effectively conserve South Africa’s elephants as part of its associated biodiversity and which must allow for proactive scientifically based management intervention. It is high time that National government accepts its responsibility to manage its biodiversity for the benefit of present and future generations. This is for no other reason than that a “no action” approach to elephant management can ultimately have
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Managing Elephants Populations: The Perpetual Indaba

more harmful repercussions to biodiversity assets than a sensible, yet sensitive approach to population management.

Another area of concern is the great lack of awareness, politically, within communities and internationally on problems associated with elephant management and conservation issues that include biodiversity. It is essential that the public be made aware of the implications of non-interventionist elephant management.

The current elephant situation in South Africa: The future of Africa’s elephants is threatened by fragmentation and decrease of habitat, growing human populations and human-elephant conflict, poaching and shortages of financial resources. South Africa is in a somewhat different and unique situation with approximately 80 reserves with elephants, 65 of which are privately owned. Currently there is a minimum elephant population of 16,500, about 3,000 of which are on private and smaller state owned reserves, the bulk are within Kruger National Park complex (KNP and adjacent reserves that removed their fences). South Africa also still has a relatively healthy economic base and private ownership and commercialization of elephants are allowed. There have been no dramatic declines in elephant population numbers, nor has there been any significant poaching impact. Human-elephant conflict is limited in scope and extent compared to the rest of the continent. In general, we have small, segmented populations on private reserves with limited opportunities to range expansion. Fences are extensively used as management tool which is not viable in other parts of Africa, but which creates its own intrinsic problems.

What are the alternatives: Existing methods of population control are problematic. Culling is becoming increasingly socially unacceptable to the world. Immuno-contraception appears to hold promise, but apart from being a high risk to the bull’s life, the effects on physiology and behavior are not known. The management of small populations is increasingly becoming problematic, for example aggressive behavior by elephants towards humans, high impact on the habitat and increased stress on the elephants through intensive tourism.

The last EMOA workshop saw the development of networks, megaparks and biome management across ecological units to be a long-term solution only. Recent research has shown that elephant do not immediately move into new areas when fences are dropped, but will slowly colonize the new areas as the population grows and food becomes scarce. This could take many years or even a new generation. So, although the idea must be pursued, immediate population control is inevitable before biodiversity is compromised. Many reserves in South Africa have reached the upper limit of how many elephant they can carry. South Africa successfully managed and increased its elephant populations. It has the third richest biodiversity in the world and must be allowed to manage its elephants and its biodiversity as it sees fit for the benefit of South Africans and the rest of the world.

Contact EMOA, Dr Marion Garai at +27(14)755 4455 or visit the website www.emoa.org.za

11 October EMOA Workshop
By Dr Marion Garai, Chairperson, EMOA

EMOA and SAWMA will hold a joint symposium/workshop October 4th and 5th. The EMOA workshop complements the SAWMA symposium announced on page 20 in the last issue. EMOA’s workshop is facilitated by Dr Christo Marais. A delegate from SANParks will make the key note presentation “The results of the SADC Southern African workshop on sub-regional elephant management” and discuss the management of elephant within the constraints of biodiversity conservation. SANParks’ scientific workshop held in March 2005 showed a discrepancy amongst researchers as to how much information is available and still needed for making decisions such as culling. The biggest dichotomy is between ‘academia’ and ‘management’. Academia can afford to wait and study, management is accountable; it is essential to bridge this gap.

Everyone is talking of the bigger systems and resolving problems at a landscape scale, but no one deals with the smaller reserves and the private sector. Many reached the upper limit of elephant numbers. The management of elephants in a confined area and the implications thereof in terms of the Biodiversity Act and other legal and policy directives need to be unpacked and explored. SA must find a way of dealing with the elephant problem and be accountable to the world.

The workshop should come up with a list of questions and problems that need to be dealt with and it should define research still necessary to answer the questions and resolve problems within a reasonable time period. The greatest hurdles are that each Province works with their own elephant policy and the absence of a national elephant management plan and national standards. It is hoped that officials from DEAT, official Parks and the Provincial departments will be present, so that a way forward can be developed. Although it will be up to Government to write a national management plan and national standards, the workshop should come up with an action plan and a strategy towards setting standards for elephant management in SA which could be presented to the Minister. The action plan must state the problems and suggest a framework for a management plan.

The SAWMA Symposium on 4th October afternoon will have the following elephant presentations:

• Elephants and drought alter woody vegetation in Etosha National Park (de Beer, Kilian, Versfeld, van Aarde)
• Africa’s elephant problem (Guldemond & van Aarde)
• A conservation alternative for African elephants: Megaparks and Metapopulations (van Aarde & Jackson)
• The Effect of Spatial Heterogeneity on Elephant Landscape Utilization in Miombo Woodlands (Ot. Jackson & van Aarde)
• Elephant Population Trends: How Realistic Are They? (Junker & Van Aarde)
• Discrete Elephant Population Dynamics Across Southern Africa (Ferreira & van Aarde)
• Survey efforts to estimate population size for African elephant conservation (J. Lehman & Ferreira)

For further details and registration please contact Dr Marion Garai, EMOA, Email mgarai@esnet.co.za

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12 Lion Demography and Abundance in KNP

Project name: Assessment of lion population demography and abundance in the Kruger National Park.

Principal researchers: Dr Paul Funston and Dr Sam Ferreira

Co-workers: Dr Gus Mills, Dr Markus Hofmeyr, and Prof Craig Packer

Study area: Kruger National Park

Date started: June 2005

Academic institutions: Department of Nature Conservation, Tshwane University of Technology, Pretoria, South Africa, Conservation Ecology Research Unit (CERU), Department of Zoology and Entomology, University of Pretoria, Pretoria, South Africa, and Conservation Ecology Research Unit (CERU), Department of Zoology and Entomology, University of Pretoria, Pretoria, South Africa, smferreira@zoology.up.ac.za

Affiliated institutions: Conservation Force, Metairie/LA, USA, cf@conservationforce.org

Project summary:
How many lions are there? Are their numbers changing and if so, how? These are the questions that managers of lions usually ask. The management of lions has many constraints, whether the lions are free-ranging or not, and it is often hard to get information about a specific group of them. As a rule, researchers spend large amounts of time trying to estimate how many lions live in an area with some form of precision. They then can calculate a population growth rate from repeated estimates of the number of lions in the same area. However, the variation in the estimates of lion numbers results in large uncertainty of growth rate.

It is both time-consuming and expensive to derive variables for a lion population. As a result managers of most reserves know far less than Kruger about their respective lions, which has a reasonably well studied population. However, in Kruger, the managers have no recent estimates of the population size, fecundity or survival of their lions. A possible compounding problem is that the incidences of disease, particularly bovine tuberculosis (BTB) in the host (African buffalo) and associated species (e.g. lion) populations. From these we can model intrinsic population growth rates and evaluate the differences between regions from which we may infer the influence of BTB on lion populations.

Project Objectives:
1. To obtain reliable lion population estimates for three regions of Kruger National Park through refinement of the calling-station technique.
2. To obtain age-specific survival and fecundity parameters from which to derive population statistics for three regions in Kruger National Park.
3. To obtain population growth rates and compare three regions of Kruger National Park characterized by different levels of disease incidences.

Conservation Force (www.conservationforce.org) is funding this project with R78,000 (=approx US$12,000).

Conservation Force is based in Metairie, Louisiana, U.S.A. and registered as a non-profit 501 (c) 3 charitable foundation. The name Conservation Force stands for three forces. First, that hunters and anglers are an indispensable force for wildlife conservation, second, that Conservation Force is a collaborative effort combining forces of a consortium of organizations and, third, that Conservation Force is a proactive force to be reckoned with because of its record of successes.

The mission of Conservation Force is the conservation of wildlife and the natural world. The purpose is to establish and further conservation of wildlife, wild places and our outdoor way of life. For more information about Conservation Force please visit www.conservationforce.org or email cf@conservationforce.org
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2 Hunting In South Africa: Facts, Risks, Opportunities

sider initiating similar funds.

Some options, especially a) and b) are already explored by a few, albeit not by as many as we would wish. Other new suggestions, in particular in connection with c) will raise a storm of controversy. Nevertheless we need to explore them and government has the obligation to facilitate a reasoned dialogue to come to negotiated solutions.

In the following section, I will touch the nerve of many. However, I consider that the Government's priorities, like BEE, poverty relief, sustainable development and last but not least, biodiversity conservation, force our society to explore new alternatives to further reasonable progress in all objectives.

3.4 Hunting in Protected Areas

In South Africa, hunting is common practice within the boundaries of numerous Provincial nature and game reserves (Mpumalanga, North-West, KwaZulu-Natal, Free State, Eastern Cape, and Limpopo). The 50,000ha Pilanesberg National Park derives a large proportion of its budget from controlled hunting in addition to receiving at least 400,000 game-viewing tourists annually. Trophy hunting has been undertaken in Pilanesberg since its establishment in 1979 and is still done today as part of the recognized management plan (Boonzaaier & Collinson, 2000). Several of these protected areas have higher intrinsic conservation values than some national parks, nevertheless, the practice of hunting is accepted within these conservation areas. It is guided by scientific advisory staff and a board that represents broad societal interests (Stalmans, Atwell, Estes et al, 2003).

In protected areas managed by SANParks hunting is prohibited. I suggest that a careful review of this policy is overdue, with the objective of making parts of the SANParks protected areas available for closely monitored conservation hunting. Such a step will instantly create many BEE opportunities as private-public or private-community-public partnerships (Community Property Associations CPA) or a combination. Opening new avenues with full transparency and public accountability, viable and meaningful BEE could be developed from scratch, thus avoiding social tensions. Namibia is exploring this avenue with good success. At the same time new and considerable revenue streams will be unlocked for conservation purposes, alleviating the burden of the management of protected areas on the national and provincial budgets without compromising either the tourism value or conservation objectives.

Protectionist circles maintain that hunting causes a detrimental impact on population genetics. However, trophy hunters search for animals with large trophies – animals which usually are old and likely to die anyhow through predation, climatic influences, territorial fights, etc. Old animals have also successfully participated in the breeding process during many seasons or are already naturally excluded. The genetic loss for the species population will therefore be minimal if any. This was shown by Whitman & Packer (Nature, 2003) for male lion above the age of six years and parallels can be drawn for other species. It is also a fact that animals killed during hunting do not necessarily constitute a net loss for the population, since the loss through hunter-caused kills is – at least to a certain measure - compensated by reduced natural mortality. When this thesis was originally published, passionate discussions followed immediately. There was no lack of efforts by some circles to brush it off as an “invention of the hunters”. Rather peculiar interpretations were published. Empirical research in Germany (Ellenberg 1978 and Pfeiffer 1991) showed, however, that populations of hare and roe did not increase when hunting ceased for some years. Other researchers proved that the number of roe deer dying of natural causes was significantly reduced, when hunting pressure (i.e. the number of hunter-killed roe deer) was increased. Similar observations were made with white tail deer in North America. In a scoping study for the Associated Private Nature Reserves Stalmans et al (2003) indicate that the magnitude of hunting is between 17% and 63% of the expected natural mortality in the age- and sex-classes that are being hunted. The killing of animals by SANParks staff for management, conservation and research inside the parks must also be considered. These off-takes could be combined with conservation hunting leaving as conclusion that individual causes for death, natural, scientific or hunter-kills, are to a large measure interchangeable.

In 1996 African Resources Trust (ART) published a paper by Michael t’Sas-Rolfes “The Kruger National Park: A Heritage for All South Africans?” The author raised a number of controversial issues and I consider it very useful to examine them in connection with potential BEE options.

The issue of non-consumptive and consumptive uses of wildlife within protected areas certainly has the greatest conflict potential, albeit I suspect that a public debate will largely use moralistic or emotional arguments. Therefore our Government has the obligation for objectively informing the public. Articulated threats from the international and national animal rights organizations must be resisted. The public needs to be informed that scientifically based biodiversity conservation and just social transformation objectives do benefit from strictly controlled and regulated consumptive use inside protected areas.

The operating costs for protected areas like our National Parks could theoretically be fully met from a combination of photo tourism, conservation hunting and herbivore management (i.e. elephant culling and sale of ivory, meat or skins, antelope culling for venison export and skins, etc). The degree of combination of the various options needs be open-ended, adaptive and depending on the changing biodiversity objectives of the areas. Unfortunately, hunting is at this stage not an option for South African NPs. The SA Constitution, international agreements like CBD and IUCN guidelines do however allow a revision of this status quo. Any move towards “Incentive Based Conservation” would have major positive implications for the South African conservation strategy and would open important management options for South Africa’s protected areas.

Conservation hunting requires that off-take quotas are carefully monitored in terms of numbers, age and sex. The estimated population size, its sex and age structure are vital factors and they must be correlated with social and reproductive behavior. Together with trophy quality measurements they will provide a comprehensive data bank. With these data wildlife managers can
make an informed evaluation of the impact of conservation hunting and make decisions to adapt processes and procedures.

T’Sas-Rolfe mentioned some figures in his report and I have used my knowledge of the national and international hunting scene to evaluate the present day economic impact of “Conservation Hunting” (a term recently created a group of researchers in Canada). I have based my calculations on the species’ population figures as published by T’Sas-Rolfe (although some, like elephant and both rhinos increased substantially, others have fluctuated downwards, as per the latest SANParks annual report). In all cases I have used extremely conservative conservation hunting quotas (CHQ), usually substantially below a calculated maximum sustainable yield (MSY), following the suggestion of ART to use a MSY of 5% and CHQ of 0.7% for elephant, for lion and leopard as a sustainable yield (MSY), following the suggestion of ART to use quotas (CHQ), usually substantially below a calculated maximum sustainable yield (MSY), following the suggestion of ART to use.

In line with the practise of other countries (i.e. USA), I further considered that local South African hunters should have preferential access to conservation hunting in protected areas at considerably lower price than visiting hunters. Within this protected niche emerging BEE companies and individuals could gain valuable additional income of just under 50 million Rand. SANParks from a serious loss situation and finally resulted in a net income of just under 50 million Rand.

SANParks had almost 3.5 million guests and 457,000 bednights in this period. However, tourism is a notoriously fickle industry and even at the best of times tourist numbers are limited. Hunters seem less sensitive to international instability as evidenced in Zimbabwe where tourism long ago collapsed, but hunting is still going strong.

Clearly, 30.5 million Rand additional income from 270 additional guests will make a huge difference. This income could be used for housing, medical assistance, etc. for those living adjacent to the parks, for conservation projects like land acquisition, conservation-favorable settlement of land claims and the establishment of BEE CPAs. The venison has not even been taken into account — it would be a cheap and healthy protein source for needy neighboring communities. With its many multiplier effects, controlled conservation hunting would make an even more significant economic impact than the above figures imply.

These calculations are based on estimated wholesale prices, i.e. the prices at which SANParks would sell to the companies which eventually market and conduct the hunts. These companies in turn would sell at market related profit margins and operate as independent economic entities, creating employment and purchasing power. The contractual mechanism between them and SANParks could be based on a concession contract, which enables the concessionaire to use a defined area of land during a specific hunting season in return for payment of the wholesale price for hunter-days and trophy fees. With these rights come a set of obligations on the part of the concessionaire regarding financial terms, environmental management, social objectives, empowerment, etc. The right marketing approach will guarantee more than 90% of the revenue stream remaining in South Africa.

In order to integrate new participants into the industry, high BEE scores are mandatory to allow companies to tender for and conduct any of these safaris on SANParks’ estate.

South Africa in general, and SANParks with KNP in particular could provide a worldwide unique product that has not been available for decades - the classic “Big Five” hunt with the black rhino – all in one large conservation area! A classic 30-day-safari of this nature can bring considerably more than the assumed $205,000. With the right partners and marketing method (auction and/or raffle) one individual Classic Big Five Safari could easily reach a price tag of no less than 0.5 million dollars. That this price range is achievable has been shown repeatedly at conventions of Safari Club International, Dallas Safari Club and the Foundation of North American Wild Sheep. Even a “consolation” Big Five safari (to use T’Sas-Rolfe’s term) with a white rhino could bring in substantially more than my conservative estimate. And this income would be sustainable over many years!

The concept of core protected areas, surrounded by multiple use zones has been accepted internationally in multilateral environmental agreements (MEA) as responsible land use system. These MEAs recognize hunting as one measure of “integrating people more effectively with wildlife” (Wollscheid, 2004). T’Sas-Rolfe suggested zoning 20% of KNP’s land area for controlled hunting. Whether this percentage is adequate or not has to be determined by the overall KNP management plan and the absolute necessity of strictly protected core areas with as little human presence as possible. Other parks in SANParks’ portfolio were not mentioned by T’Sas-Rolfe, but their conservation hunting potential should certainly be evaluated too. We also have to include areas like the Makuleke Community or the Mthethomusha GR, the APNR and many other private conservancies around the parks borders, pending land claims, as well as multi-use zones within the transfrontier expansion of the parks estate. Conservation hunting will not materially affect animal numbers and animal mortality, since in semi-arid ecosystems species populations rise and fall mainly in response to rainfall and the subsequent availability of browsing and grazing, predation pressure and other environ-

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mental factors.

Careful consideration must be given to the interaction (or the lack of) between conservation hunting and the important sector of non hunting ecotourism activities. A simple solution would be zoning different parts according to intensity and type of human intervention, but usually layered multi-use solutions are more effective. It is considered “common wisdom” that ecotourism and hunting impact negatively upon each other. That can certainly be the case and incidents have been and are observed. Poorly regulated and/or unethical hunting definitely impacts negatively on the behavior of game. Indiscriminate shooting, particularly into herds, from vehicles and close to roads or tracks may make game animals wary of humans and vehicles. Other conflicts between hunting and tourism operators can usually be traced back to poor communication and insufficient tolerance, knowledge and sensitivity by individual staff members involved on either the hunting or tourism side (Stalmans, Atwell, Estes et al, 2003). Stalmans et al. explicitly state in their paper that conservation hunting and game viewing can be managed successfully together on the same property. On the 7,200 ha Mthethomusha Game Reserve that adjoins KNP in Mpumalanga, 6 to 8 buffalo per year have been hunted for many years and a reputable private sector company operates a successful 60-bed commercial lodge within the reserve for the high-end South African and overseas tourist. The Mpakeni community that owns the land draws substantial benefits by combining consumptive and non-consumptive use options.

The Makuleke Communal Property Association (CPA) generated about R1.5 million a year for community projects from hunting 5 elephant and 7 buffalo in 2003. The meat from the hunted animals went to the community. Some of the CPA-supported projects include school improvement, bursaries for top students, boreholes and food for the poorest families in the villages. The Makuleke CPA also opted at running ecotourism operation on the 22,000 ha contractual park. At that stage conflict arose since the tourism concessionaires want to exclude hunting. The community however feels that to hunt sustainably is their right and in their negotiations with the tourism operators they have reserved the right to resume the hunting program.

The Makuleke example shows that often hunting and ecotourism are considered as being mutually exclusive; yet, a combination of uses can be complementary, achieve conservation goals and have greater economic benefits. Keys to such compatible wildlife use are (Stalmans et al 2003):

- Low volume of hunting;
- Use of appropriate hunting protocols that minimize disturbance to animals;
- Use of temporal or spatial zonation to avoid visual or auditory impact of hunting on game viewing tourists;
- Different overnight and catering facilities for hunters and game-viewing tourists;
- Discrete transport of carcasses and location of slaughtering facilities;
- Strict communication protocols between hunting and ecotourism staff to avoid overlap of activities and mutual impact.

Strict hunting regulations and a concise protocol governing conservation hunting are of utmost importance. For SANParks, and particularly for KNP, this would mean that only mature elephant bulls over approx. 45 years of age and a maximum single tusk weight of approx. 35kg should be hunted. These bulls have exhausted their tusk development potential. Younger bulls, which still experience exponential tusk development, should not be hunted irrespective of tusk size to safeguard the genetic potential for super tuskers. Designated super tuskers must be protected under all circumstances.

Buffalo hunting should be restricted to mature bulls with fully hardened boss. These bulls should only be hunted if solitary or in bachelor groups in order to exclude herd disturbance. For lion, Whitman & Packer have demonstrated that restricting the hunting to males over an age of 6 years is sustainable, irrespective of quota (nose pigmentation serves as guiding factor)); they advise also not to hunt male lions from a pride, if cubs less than 9 months of age are present. Leopard hunting should target only males of an approx. age of 4 years or older. The last of the Big Five – white and black rhino hunting should be restricted to post-reproductive bulls and – if biologically sound – to post-reproductive cows.

All these arguments may still not convince outspoken adversaries of consumptive sustainable use and “Incentive Based Conservation”. They state that the killing of wild animals is brutal, uncivilized and anachronistic. Killing animals to save them seems counterintuitive, but it still takes a healthy productive population to produce a few large trophy male lion or elephants and ecotourism often has far more detrimental general environmental impacts. Game viewing and photographic tourism affects wildlife in a number of negative ways. Behavioral changes like habituation from feeding and interaction with humans are possibly those of least concern to the ecotourists, since it actually enhances the perceived experience. Nevertheless, these changes take the “wild out of the wild”. Far more serious consequences are caused by the disruption of feeding patterns in rhinos and birds or the hunting success for large carnivores like lion, cheetah, leopard and wild dog as well as physiological changes with repercussions on breeding success, growth rate and interspecific interactions.

The demand for unprecedented luxury in up-market lodges with the resultant pressure on resources, waste disposal problems, the expectation of comprehensive infrastructure and services and finally the large number of ecotourists create a significantly higher pressure on habitats and animals than conservation hunting. One of the most successful up-market lodge operators in Southern Africa said: “our lodges are generally world standard and some are even rated in the top five anywhere. These lodges are attracting the very top end of the international tourists [...] These people are paying a lot and demand incredible service”. Has he ever considered the “Ecological Footprint”? Moreover, exclusive ecotourism is limited to specific and spectacular areas with charismatic and easily observable wildlife. Does he have any suggestions for the less spectacular African regions?

In conclusion: the combined effects of the various ecotourism activities on biodiversity are indirect, less obvious, but potentially more lethal to wildlife; non-consumptive use generates certainly benefits for some Africans but it cannot improve the lot of the vast
majority of Africans, unless combined with sustainable consump-
tive use12.

3.5 Game on Private Land

When we read about the wildlife industry, especially in con-
nection with hunting, the expressions “game ranching, game farm-
ing and game breeding” are often used interchangeably. I suggest
that it is essential to make a distinction between “wildlife man-
agement for conservation” and “wildlife manipulation for selective
breeding of individual species”, since otherwise serious interpreta-
tion problems and misunderstandings may evolve.

The “South African Conservation Revolution”, as Peter Flack13
termed it, saw private land under game increase by a compound
rate of 5.6% or 500,000ha pa over the last 10 years according to
empirical studies by Prof. T. Eloff of Potchefstroom University.
Hunting was a main driver of this phenomenal development and
hunters, game ranchers and game cappers were and are the
heartbeat of what has not only brought so many species back
from the brink of extinction but has created the biggest conserva-
tion success story on our continent (Flack, 2002).

Scientifically sound ecological principles must remain one of
the underlying purposes of private conservation and wildlife man-
agement. To deservedly use the proud phrase “The South African
Conservation Revolution”, the stakeholders in the wildlife industry
– in particular the landowners – must ensure that the conservation
of biodiversity on their land is based on these principles. Econom-
ics and sustainable financial returns on investment are other fac-
tors to be considered. Last not least, a successful wildlife industry
which aims at broad-based public support must take socio-political
aspects into account.

The future of the private conservation efforts as important con-
tribution towards the National Conservation Strategy of South
Africa will rest on the correct combination of these three pillars of
sustainability: Ecology (measured in the conservation contribu-
tion, the diversity of indigenous species in healthy habitats, and
improvement of genetic diversity, etc); Economy (capability for
yielding a return on investment and profitability, conservation self-
sufficiency, etc.), and Social Responsibility (public interest of
conservation, identifying, addressing and solving the issues of
BEE and community participation, traditional indigenous hunting,
etc.). Not one of these three pillars can be excluded. Therefore a
“Triple Bottom Line” approach appears to be the only solution.

The mentioned phenomenal success of private wildlife con-
servation and the breathtaking speed of conversion of agricultural
land (for crops and/or live stock) to game habitat also brought
negative outcomes. Some land owners ruthlessly aim at the
commercialization of the resource wildlife without considering
ecological and social requirements. In many case an entire litany
of pseudo conservation arguments are used to give the operation
a conservation alibi. These operators often tout their particular
management philosophy as good conservation practice and are
often successful in marketing their properties as ecotourism
and/or hunting destinations to a gullible public (Graupner, 2004+).

Graupner disregards the difference between “wildlife man-
agement for conservation” and “wildlife manipulation for selective
breeding of individual species” and that good wildlife management
practices on private land need the “Triple Bottom Line” approach.

Those who continue to advocate the mass breeding of lion for
shooting purposes, those who practice the releasing of mature
“trophy specimens” of any game species just prior to a “hunt” on
any property irrespective of size and those who breed freak color
variations, intentional hybrids and exotic game species for shoot-
ing try to sell this as “good conservation”. They are not only
wrong, but with their errors of judgment and actions they seriously
hurt the future of private wildlife conservation and “Incentive
Based Conservation”. Peter Flack wrote in 2002: “to mention but
one truism, anyone killing an animal – whether it be a lion or a
lizard – in a tiny, enclosed encampment, whatever you may call
him, cannot by definition be a hunter. He may be a killer, a
shooter or a pervert but he is not a hunter and what he is doing
does not by any stretch of the imagination constitute hunting.”

A sector within the game ranching industry insists that there is
a major difference between practical wildlife management on pri-
vate properties and that on protected areas owned by the State.
These people rather want to be under the jurisdiction of the De-
partment of Agriculture than the Department of Environmental
Affairs & Tourism. Sadly, they do miss the point entirely; their
objectives are neither ecologically nor sociologically motivated –
they only think exclusively in economic terms. Their rejection of
the Triple Bottom Line principle reveals a distinct myopic problem.

It is time that we make idiomatic distinctions to the various
forms of the game ranching industry – just as we distinguish be-
tween conservation hunting, game cropping and game culling.
Game ranchers who strive for the triple bottom line approach must
not be put into the same category as game breeders, and game
breeders again have to be divided into sub-categories according
to their conservation contribution:

Some breed specific game species like rare antelope (i. e.
Addax, Scimitarhorned Oryx, etc) “ex situ”; these breeders can
indeed claim a conservation purpose in their activity, provided
they coordinate their programs closely with researchers (i.e. IUCN
Antelope Specialist Group, Center for Sahelo-Saharan Wildlife
Recovery, etc) who are involved in establishing breeding stocks
for controlled re-introduction to the wild. Under certain conditions
of fair chase (defined as pursuit of a free or enclosed ranging
animal possessed of the natural behavioral inclination to escape
from the hunter and be fully free to do so) selected post-
reproductive individuals could be hunted, provided those hunted
individuals are part of a population which is located in an area that
meets both the spatial (territory and home range) and temporal
(food, breeding and basic needs) requirements of the population
of which the hunted individual is a member.

The second category of game breeders specializes in rearing
rarer species like Roan, Sable, Lichtenstein’s Hartebeest, Living-
stone’s Eland, Tsessebee, etc. This is usually under intensive
management schemes with predator exclusion. Breeding groups
from these herds can indeed become either founder populations
in suitable historic habitat or be used for diversifying the genetic
pool of existing populations. This activity has also a distinct con-
servation value.

The third category are the game breeders who manage spe-

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conservation, management and the sustainable use of Africa's wild natural resources
citc species like Springbok, Blesbok, Ostrich, etc for game cropping – i.e. for the local or export venison markets. Usually these breeders exclude predators and competing grazers/browsers from their operation to maximize the carrying capacity respectively the annual harvest quota (MSY) and thus the economic return. Theirs is a live stock operation with no direct conservation value.

Lion breeders certainly do not fall into any of these three categories, since their lions are usually bred in restricted enclosures, with food provided for and not self-caught, and social interaction within the species or interspecific interaction notoriously absent – and who would eat lion fillet? The lion breeders’ often repeated claim that their “stocks” serve as founder populations for the re-establishment of lion in former range areas is simply false. It is a hard fact that the “rehabilitation” of captive born large carnivores has never been successful (Anderson, 2005). Moreover, there are sufficient stocks of wild large carnivores within the protected areas of South Africa and of our neighbors to enable conservation authorities and private landowners to establish new wild populations. There is absolutely no need for so-called “rehabilitation” programs for large African carnivores some of them even “rescued” from zoos around the world, unless one considers the financial objectives of certain animal rights organizations and the lion breeders themselves (the two make strange bedfellows indeed). And the conservation value? Absolutely negative!

Game ranchers with the triple bottom line approach derive income from ecotourism, hunting, culling, cropping or live sales or any combination thereof. They may even be game breeders in one of the three categories described, if their operational structures allow such subdivision. Antelope species breed at different rates, depending on the species and the availability of food and water. According to Professor Eldff they multiply at a compound rate of 25% on average (Flack 2003). It follows that a game ranching operation most likely has to employ a combination of hunting, culling/cropping and live sales to maximize the potential of a triple bottom line approach.

Game ranchers should urgently explore innovative approaches like the formation of large conservancies under a common management scheme in order to keep in tune with market demands. Hunters prefer large areas without internal subdivisions. Ecotourists also find them more attractive and more akin to the “Old Africa”. Game and veld management will be less complicated and less susceptible to climatic changes and disease incidents on large conservancies. Conservancies are ideally suited for the inclusion of communities (CPAs) and BEE partners and last not least they have the highest triple bottom line potential.

South African game ranchers and their colleagues from professional hunting need to take a positive attitude and think forward in these difficult and challenging times. Pro-active engagement in biodiversity conservation initiatives, participation in wildlife research and an integrated approach to natural resource management must be the cornerstones; a concerted dialogue amongst all stakeholders and the support and cooperation from and with provincial and national governments is needed. This will ensure the continued prosperity of the wildlife industry, their positive contributions to the National Conservation Plan and their important eco-economic share in the South African GNP.

### 3.6 Certification, Self Regulation & Legislation

Conservation hunting (as well as game ranching and other sectors of the South African wildlife industry) has to be able to function within a clearly defined legal frame of reference. The comprehensive Addis Ababa Principles and Guidelines (AAPG see Annex 1), adopted by 188 Parties to the CBD in 2004, serve as an ideal basis for further developing legislation, regulations and codes of conduct for conservation hunting and game ranching. These principles and guidelines have meanwhile been acknowledged by CITES and IUCN (see Annexes 2 & 3) as baseline for “Incentive Based Conservation” policy. Governments, NGOs, landowners and communities are called upon to implement them at every level.

The South African wildlife industry can use AAPG to establish guidelines for triple bottom line sustainability and develop an accreditation or certification system for game ranches, safari operators and professional hunters. The development of a “Best Practices” framework for landowners, resource managers, communities, professional and amateur hunters, ecotourism operators, etc. is another building block. AAPG and Best Practices can set the frame for any national or regional development towards standards or codes of conduct for hunting and assist in policy and legalization formulation. The International Council for Game and Wildlife Conservation (CIC), which represents Governments, scientific institutions and hunting associations in 81 countries already uses the AAPG worldwide to define standards for sustainable hunting (Annex 5). The commissions and working groups of CIC continuously assist regulatory authorities that evolving policies for wildlife conservation and hunting reflect the AAPG in an appropriate way. The present DEAT initiative should take into account that expert consultancy is indeed available.

Establishing a set of Principles, Criteria and Indicators (PCI) is a modern approach which allows measuring and evaluating of the status quo and future scenarios in hunting and game ranching in an objective and transparent way. Prof. F. Reimoser15, a designated CIC-Expert, has shown this for hunting in Austria. His work can certainly be modified and adapted to African and South African conditions. The PCI-approach can also be used to establish a basis for “Best practices in Hunting and Game Ranching” respectively for “Hunting or Game Ranching Certifications”. It may also be a useful tool to assist in the popular acceptance and understanding of conservation hunting and game ranching. Prof. Reimoser and the CIC have indicated that the experience gained so far, lessons learned and the extension of the PCI approach could be made available to DEAT.

Reimoser’s approach was one of a gradually extending process of participation to allow a large number of people from all relevant groups to express their views and contribute own ideas and experiences. In South Africa this participatory process could include representatives of

a) Professional hunting organizations
b) Game ranching organizations
c) Ecotourism organizations & operators

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d) Amateur hunting organizations
e) Recognized research biologists
f) IUCN SSGs and SUSGs
g) Conservation organization (WWF-SA, CI, EWT, AGRED, etc)
h) International hunting organizations (CIC, Conservation Force, SCI, DSC, etc.)
i) National and Provincial Government Departments
j) National Parks Authorities
k) External consultants

Apart from existing and proposed national and provincial legislation, the consultation needs to incorporate international initiatives such as CBD (in particular the AAPG), CITES and the African Convention on the Conservation of Nature and Natural Resources (Annex 4). The result of the consultation process will be defined principles, criteria and sub-criteria for which indicators and values can be established. An adaptive process work with topical discussions in expert groups as well as field testing will make sure that parameters are not cast in concrete, but can be modified to suit changing conditions. These outcomes will also have relevance for adaptations in wildlife legislation.

The method can be used for game ranching as well as conservation hunting operation and indeed for ecotourism operations too. The assessed unit being the game ranch (or conservancy, community land, private or state land or any combination thereof); and the hunting safari outfitter or ecotourism operator. Reimoser clearly defines the individual assessment unit as fundamental basis for such a sustainability examination, which will include details such as geographic location, ownership and legal circumstances, natural conditions as well as management and monitoring methods. It is quite clear that one of the basic pre-conditions for a valid result is a rolling database with comprehensive and up-to-date statistical information. Unfortunately, this database is not yet available, but could be established quickly. A structured evaluation scheme with grades and assessments on a sliding scale from negative to positive for individual triple bottom line components/subcomponents will eventually enable the researchers to arrive at a fact based and transparent rating.

Authoritative self-regulation will be an important success factor of this process. Therefore the State must consider empowering professional bodies like PHASA by delegating a measure of authority. Such authority should include compulsory membership, disciplinary action from suspension to exclusion, autonomy (within stated policy guidelines) for profiling the profession and setting training objectives, etc. The State should also ensure a consultative and inclusive legislative development which incentivizes good practices and penalizes unsustainable and bad practices.

Unfortunately the consultative process with stakeholders has been largely ignored especially for professional hunting in connection with the new Firearms Control Act of 2000. There is already evidence that visiting hunters drop destinations in South Africa in favor of those in other SADC countries. Present unconfirmed estimates put the reduction of foreign hunters visiting South Africa at around 1000 for the current hunting season – a loss to the SA economy of more than 17 million dollars. I have hunted in countries like China, Iran, Russia, Tajikistan, etc – and nowhere have I experienced a similar situation like presently observable at South Africa’s international airports on a daily basis. The hunter who comes to South Africa as a visitor and paying client will react to unreasonable bureaucratic hurdles by simply choosing other destinations. Prior to the introduction of the new Firearms Act, I firmly believed that South Africa visitor hunting market would grow at annual rates of around 15%, surpassing a volume of 300 million dollars by 2010 (without taking into account possible expansion of hunting opportunities/species, as mentioned earlier in this article). I believe that South Africa can ill afford any economic loss in this field; since any such loss will seriously impact on all three sectors of the triple bottom line: ecology, economy and socio-politics.

The present legislation which deals with hunting and game ranching has never been overhauled completely since the arrival of democracy in South Africa. It is a jungle of divergent, contradictory and often difficult to interpret paragraphs, where the borders of jurisdiction of Provinces and State are frequently blurred or crossed. It is obvious that modern conservation biology concepts, the ideas of “Incentive Based Conservation”, and critically important parts of relevant national conservation legislation as well as significant international and Pan-African MEAs are missing.

Recent information shows that some provinces are in the process of drafting new hunting legislation. Although it is high time that the old acts (which date from the early 70’s for KwaZulu Natal and the late 60’s for the Free State for example) are revisited and modernized, However, I feel that a more concerted and transparent action is needed. Consultation is essential to avoid costly mistakes. The Provinces must coordinate the re-drafting process amongst themselves in order to exclude contradictory legislation and perverse incentives, which could seriously hamper the development of the wildlife industry and they should use readily available expertise as offered by the CIC.

I just want to mention an interesting passage from the antiquated, but still valid KZN ordinance: “No person shall import into the Province of Natal any game, excluding biltong manufactured under veterinary supervision by the National Parks Board of Trustees, without a written permit granted to him by the Board with the prior approval of the Administrator [of KZN]; provided that any such permit shall be granted only subject to the production by the applicant to the Board of a permit granted to him by the Division of Veterinary Services or other officer of the government having authority to grant same.” This means in simple words that a person importing game or trophies into KZN from other provinces (or vice versa) without the necessary permits could be charged and prosecuted. Such outdated legislation needs urgent attention.

I suggest that an overhaul of this tangled legislative system is extremely difficult. A better solution would be the formulation of a totally new legislation framework, where the requirements of the State and the Provinces are adequately taken care of and all relevant MEAs are considered. The new legislation must be an enabling one – one that brings new economic growth to the industry, enhances conservation on the ground and includes relevant BEE objectives (the triple bottom line again).

The DEAT “Panel of Expert Initiative” subcontracted specialist input for the panel’s work. However, the set time frame was ex-
tremely tight and did not provide for enough expert input for the huge task at hand. The parties who will present papers to the panel based on the minister’s terms of reference had virtually no time to prepare their tender papers, and had little time to do research to present facts, figures and solutions. I also regret that some of the foremost and globally recognized South African experts in wildlife management and conservation hunting were prevented from even presenting their proposals to DEAT because of the tight time lines. It should have been foreseen that these experts do usually have current contractual obligations to comply with and are not always free to accept sudden new assignments.

Maybe the Minister should consider accepting expert assistance from outside South Africa. This has been offered. The International Council for Game & Wildlife Management (CIC) has a team of legal experts drawing on wide international experience; the German Hunting Association\(^4\) could assist in matters of hunting and conservation legislation with experiences from the German federal system (which served as model for the South African Constitution); the German Technical Cooperation (GTZ)\(^5\) has assisted a number of African states in hunting and conservation legislation; Conservation Force\(^6\) is constantly involved in hunting advocacy and all legal aspects of African wildlife conservation; the Danish Hunters’ Association\(^7\) has a wide experience in projects in Africa; all could combine their experience with other local and international organizations to cooperate with DEAT on a blueprint for a comprehensive new legislation package.

4. Conclusion

A serious attempt has to be undertaken by the main stakeholders in the South African wildlife industry to come to terms with image problems, lack of organization and lack of public relations. Conservation hunting and game ranching must define boundaries and future developments by reviewing, and if necessary adapt activities, procedures and organizational structures. The most crucial issues hunters and game ranchers have to address are self regulation, self control and the concept of the triple bottom line approach – ecology, economy and social impact.

The State and the Provinces have to accept the responsibility that only comprehensive and enabling legislation will allow the expansion of these three pillars. The regulatory power must not be perceived as digging at the bases to eventually make the house fall into ruins. The DEAT initiative has the potential to provide a comprehensive legislative package and the basis for self-regulation, accreditation and certification. The appropriate legal and administrative framework (including monitoring and enforcement systems, financial support schemes) must guarantee the sustainable character of the use of biological resources. Such framework will have to be accompanied by measures of information, education and awareness building for all sectors concerned. As a by-product, reports, fact sheets and media campaigns will create the basis of an open and healthy dialogue between hunters, land owners/managers and conservationists and the public. As a result of these concerted actions, the South African wildlife industry will finally enjoy a positive policy environment.

This present unique opportunity must not be wasted with half hearted measures. Our biodiversity, our economy and our people require that all chances, risks and opportunities are explored and that the legislation will enable all South Africans to contribute meaningfully to our National Conservation Strategy.

Private stakeholders in “The Wildlife Game” provide a free and important public service. They deserve the support of the country’s political parties in general, and those in government in particular. They need a sensible legal framework which lays down the limit between good and bad practices, which sanctions those who elect to break the rules and most importantly which incentivizes the majority who do far more than the legally required minimum for the benefit of all South Africans and our biodiversity. The efforts of the private sector as managers of much of the country’s natural resources and its work to implement sustainable practices through Incentive Based Conservation\(^2\) need to be recognized by a grounds swell of public support.

The natural environment is the common heritage of all South Africans. Differences between hunter-conservationists and non-hunting conservationists – frequently a result of insufficient information – are in reality often minute. The South African Government can reduce conflict potential and polarization between hunters and other conservationists by launching a “Conservation Hunting Initiative” through a truly representative Advisory Council which ensures transparent policy initiatives, concerted actions and up-to-date information of the public. This will eventually lead to THE WIN-WIN SCENARIO where the social, ecological and economic functions of natural habitats are guaranteed and sustainable.

End Notes & Annexes

2. Robert Kenward, 2004 “Incentive-Based Conservation: Moving Forward By Changing The Thinking”
3. Conservation Force Email: iau-no@art.net Web: www.conservationforce.org
4. International Council for Game and Wildlife Conservation (CIC), Email: k.wollscheid@cic-wildlife.org Web: http://www.cic-wildlife.org
5. Game evaluated: Elephant, Lion, Buffalo, Impala
8. Figures taken from SANParks annual report as published on the web
10. “Hunting in the Associated Private Nature Reserves”, final scoping report, 02/2003, M Stalmans, BA Well, L Estes, contact: stalmans@icc-consulting.co.za
12. Cleve Cheney “True Game Ranching” African Indaba Vol/1

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Sahelo-Saharan Wildlife Recovery


19 See African Indaba Vo23 and Vo34 about certification, best practices etc.

18 Deutsche Jagdtschutz-Verband e.V. (DVJ) Email: DJV@lagjagdtschutzverband.de.

Web: http://www.iapg-online.de/

19 GTZ Wildlife Tanzania Web: www.wildlife programme.gtz.de/wildlife/start.html

20 John Balarin “Traditional Hunting: Denmark & Malawi Civil Society Partnership” (African Indaba Vo24 www.africanindaba.co.za)

21 Dr. Jonathan Hutton “What sustainable use is, and what it is not” (African Indaba Vo24 www.africanindaba.co.za)


[... the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity (AAPG) - to a large extent based on IUCN’s Amman Policy Statement on Sustainable use of Wild Living Resources - were adopted by the Parties to the CBD in February 2004. AAPG in fact represent the latest state of the art on sustainable use of biodiversity. With this tangible tool to hand, the Parties to the Convention can better focus on keeping their commitment to achieve, by 2010, a significant reduction in the current rate of biodiversity loss. The 14 Principles and Guidelines contain a code of practice for governments and decision makers right to the local level about how to use biological diversity in a sustainable way. It includes the cross-borders use of natural resources (game as well as e.g. water), a better integration of scientific surveys into decision-making processes, more direct responsibility and the right for co-determination for the people living with the resources [...]. AAPG provide a framework for assisting stakeholders on all geographical levels, as well as institutional levels such as the UN System, Conventions, Governments, development agencies, local and indigenous communities, resource managers, the private sector and NGOs, on how to ensure that their uses of biodiversity will not lead to its long-term decline. Governments should now strive to integrate the AAPG in the development or review of policies, national legislation and other regulations, sectoral and cross-sectoral plans and any programs addressing uses of biodiversity. [...] AAPG also underline in which way ecosystems serve and maintain cultures, societies and communities. Governments and decision-makers are therefore called upon to consider the promotion of the AAPG as an instrument for safeguarding traditional societies and cultures. They apply to any consumptive or non-consumptive use of biological diversity. Their application will naturally vary according to the resource being used, the conditions under which it is being used, as well as the institutional and cultural context in which such use is taking place. Bridging the various geographical and institutional levels, AAPG will also provide an excellent tool for different sectors to enhance sustainable use: i.e. forestry, wildlife, fisheries and tourism [...]. The wildlife sector will be an example of the implementation process bringing together stakeholders from different angles. [...] AAPG provide a common base within the various and rarely linked programs and initiatives to develop coherent approaches to sustainable wildlife use by designing programs on sustainable hunting. An extensive use is being made of the Addis Ababa Principles and Guidelines www.cites.org/eng/res/1313-02.shtml

The Conference of the Parties to the Convention urges the Parties to: a) make up the Principles and Guidelines for the Sustainable Use of Biodiversity; also taking into account scientific, trade and enforcement considerations determined by national circumstances, when adopting non-detritum-making processes and making CITES non-detritum findings; b) share experiences on sustainable use at the national level, particularly between CITES Management and Scientific Authorities, and their CBD Focal Points; and c) endeavor to ensure that their CITES Management and Scientific Authorities participate, through their national CBD Focal Points, in the work of CBD and its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) on these Principles and Guidelines; and URGES the Parties that are also Parties to the CBD, to take effective measures at policy and institutional level to ensure synergy between their implementation of CITES and CBD at the national level.

Annex 3


[...] the Conference of the Parties to the Convention urges the Parties to: a) make up the Principles and Guidelines for the Sustainable Use of Biodiversity; also taking into account scientific, trade and enforcement considerations determined by national circumstances, when adopting non-detritum-making processes and making CITES non-detritum findings; b) share experiences on sustainable use at the national level, particularly between CITES Management and Scientific Authorities, and their CBD Focal Points; and c) endeavor to ensure that their CITES Management and Scientific Authorities participate, through their national CBD Focal Points, in the work of CBD and its Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) on these Principles and Guidelines; and URGES the Parties that are also Parties to the CBD, to take effective measures at policy and institutional level to ensure synergy between their implementation of CITES and CBD at the national level.

Annex 3

IUCN Resolution RES3.074 - Implementing the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity [...] The World Conservation Congress at its 3rd Session in Bangkok, November 2004:

www.iucn.org/congressmemBERS/iwCC_res_RecS_ENGLISH.pdf

[...] 2. REQUESTS the IUCN Director General to: (a) ensure that the Addis Ababa Principles and Guidelines, as well as the IUCN Policy Statement on Sustainable Use of Wild Living Resources - were adopted by the Parties to the Convention can better focus on developing tools for the implementation of sustainable-use principles in practice, while maintaining a distinctive focal point for forward thinking; and (b) promote initiatives which enable relevant components of the Union to work together to develop tools for the implementation of sustainable-use principles in practice, while maintaining a distinctive focal point for forward thinking; and (c) encourage IUCN and its members to (a) carry out case studies that describe both positive and negative experiences in the implementation and outcomes of sustainable-use programs and to identify lessons learned; and (b) provide these case studies to the CBD Secretariat and other relevant organizations.

The IUCN Policy Statement on Sustainable Use of Wild Living Resources (Resolution 2.28) adopted at the IUCN World Conservation Congress, Amman, October 2000: [...] To increase the likelihood that any use of a wild living resource will be sustainable requires consideration of the following: [...]. c) Wild living resources have many cultural, ethical, ecological, and economic values, which can provide incentives for conservation. Where an economic value can be attached to a wild living resource, perverse incentives removed, and costs and benefits internalized, favorable conditions can be created for investment in the conservation and the sustainable use of the resource, thus reducing the risk of resource degradation, depletion, and habitat conversion; d) Levels and fluctuations of demand for wild living resources are affected by a complex array of social, demographic, and economic factors, and are likely to increase in coming years. Thus attention to both demand and supply is necessary to promote sustainability of uses.

Annex 4

African Convention On The Conservation Of Nature And Natural Resources (Afric a Union Official Treaty Documents)

The revised African Convention on the Conservation of Nature and Natural Resources (“African Convention”) is a regional convention that incorporates modern schemes of conservation, already forming part of other conventions; it strengthens the role of sustainable use for conservation, while pointing out the need for countries to cooperate across borders, and finally calls for increased efforts in education and the involvement of indigenous peoples. All of this is of vital importance to the development in Africa - as well as an integral part of the AAPG. As the African Convention, however, lacks clear guidance on how best to meet the mentioned objectives, it could be the role of the AAPG to become such guiding tool. It is foreseeable that this Convention will be acknowledged internationally, as it can serve as an excellent example for other regions to follow [...].

The objectives of this Convention are: 1. to enhance environmental protection; 2. to foster the conservation and sustainable use of natural resources; and 3. to harmonize and coordinate policies in these fields with a view to achieving ecologically rational, economically sound and socially acceptable development policies and programs.

Annex 5


[...] The 52nd CIC General Assembly in Abu Dhabi, United Arab Emirates, 12-18 March 2005 1. REQUESTS the CIC President and the CEO to: a. ensure that the AAPG are appropriately reflected in all relevant CIC policies, programs and projects; and b. advise CBD that CIC shall continue its cooperation in implementing the AAPG. 2. STATES that CIC Members, including Commissions and Working Groups, will support initiatives for the implementation of these sustainable use principles in practice.

NAPHA News

Joern Wiedow was appointed CEO of the Namibian Professional Hunters’ Association. A born and bred Namibian, Wiedow has degrees in Christian Higher Education and Industrial Psychology. His career in Human Resources Management started with the Namibian Broadcasting Corporation and continued with Nedbank Namibia as a member of Nedbank’s Strategic Management Team. He participated in the Senior Management Program of Stellenbosch University and is Vice Chairman of Namibia Health Plan. Wiedow is fluent in German, English and Afrikaans.
### Table 1: Possible Conservation Hunting Quotas (CHQ) SANParks Estate

<table>
<thead>
<tr>
<th>Species</th>
<th>Local Quota</th>
<th>Tourist Quota</th>
<th>Total</th>
<th>Species</th>
<th>Local Quota</th>
<th>Tourist Quota</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Rhino</td>
<td>5</td>
<td>15</td>
<td>20</td>
<td>Waterbuck</td>
<td>0</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td>Black Rhino</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>Blue Wildebeest</td>
<td>100</td>
<td>60</td>
<td>160</td>
</tr>
<tr>
<td>Buffalo</td>
<td>103</td>
<td>77</td>
<td>180</td>
<td>Eland</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lion</td>
<td>18</td>
<td>17</td>
<td>35</td>
<td>Nyala</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Leopard</td>
<td>30</td>
<td>17</td>
<td>47</td>
<td>Tsessebee</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Hippo</td>
<td>73</td>
<td>0</td>
<td>73</td>
<td>Roan</td>
<td>0</td>
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<tr>
<td>Zebra</td>
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<td>60</td>
<td>160</td>
<td>Lichtenstein's</td>
<td>0</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>600</td>
<td>505</td>
<td>1105</td>
<td></td>
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</tr>
</tbody>
</table>

### Table 2: Proposed Wholesale Trophy Fees SANParks Estate

<table>
<thead>
<tr>
<th>Species</th>
<th>Trophy Fee Local Hunters</th>
<th>Trophy Fee Tourist Hunters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elephant Bull</td>
<td>R 40,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>Elephant Cow</td>
<td>R 15,000</td>
<td>$20,000</td>
</tr>
<tr>
<td>White Rhino</td>
<td>R 50,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>Black Rhino</td>
<td>R 150,000</td>
<td>$100,000</td>
</tr>
<tr>
<td>Buffalo</td>
<td>R 12,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Lion</td>
<td>R 20,000</td>
<td>$25,000</td>
</tr>
<tr>
<td>Leopard</td>
<td>R 12,000</td>
<td>$5,000</td>
</tr>
<tr>
<td>Hippo</td>
<td>R 6,000</td>
<td>$3,000</td>
</tr>
<tr>
<td>Zebra</td>
<td>R 2,000</td>
<td>$800</td>
</tr>
<tr>
<td>Warthog</td>
<td>$200</td>
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</table>

### Table 3: Proposed Wholesale Prices for Conservation Hunting Safaris SANParks Estate

<table>
<thead>
<tr>
<th>Safari Packages for Local Hunters (Computer Draw)</th>
<th>Qty</th>
<th>Days</th>
<th>Daily Fee</th>
<th>Total Daily</th>
<th>Trophy Fees</th>
<th>Total Price</th>
<th>SANP Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elephant Bull only</td>
<td>15</td>
<td>15</td>
<td>R 1,000 R 15,000</td>
<td>R 40,000</td>
<td>R 55,000</td>
<td>R 825,000</td>
<td></td>
</tr>
<tr>
<td>Elephant Cow only</td>
<td>18</td>
<td>10</td>
<td>R 1,000 R 10,000</td>
<td>R 15,000</td>
<td>R 25,000</td>
<td>R 450,000</td>
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</tr>
<tr>
<td>White Rhino only</td>
<td>3</td>
<td>15</td>
<td>R 1,000 R 15,000</td>
<td>R 50,000</td>
<td>R 65,000</td>
<td>R 195,000</td>
<td></td>
</tr>
<tr>
<td>Elephant Bull, White Rhino, Buffalo, Lion, Leopard</td>
<td>2</td>
<td>20</td>
<td>R 1,000 R 20,000</td>
<td>R 134,000</td>
<td>R 154,000</td>
<td>R 308,000</td>
<td></td>
</tr>
<tr>
<td>Elephant Bull, Black Rhino, Buffalo, Lion, Leopard</td>
<td>1</td>
<td>20</td>
<td>R 2,000 R 40,000</td>
<td>R 234,000</td>
<td>R 274,000</td>
<td>R 548,000</td>
<td></td>
</tr>
<tr>
<td>Elephant Bull, Buffalo, Lion, Hippo</td>
<td>12</td>
<td>15</td>
<td>R 1,000 R 15,000</td>
<td>R 76,000</td>
<td>R 93,000</td>
<td>R 1,116,000</td>
<td></td>
</tr>
<tr>
<td>Elephant Cow, Buffalo, Hippo</td>
<td>15</td>
<td>15</td>
<td>R 10,000 R 150,000</td>
<td>R 33,000</td>
<td>R 183,000</td>
<td>R 2,745,000</td>
<td></td>
</tr>
<tr>
<td>Buffalo, Lion, Leopard</td>
<td>24</td>
<td>15</td>
<td>R 1,000 R 15,000</td>
<td>R 24,000</td>
<td>R 39,000</td>
<td>R 936,000</td>
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</tr>
<tr>
<td>Buffalo, Zebra, Impala, Blue Wildebeest, Hippo</td>
<td>46</td>
<td>10</td>
<td>R 1,000 R 10,000</td>
<td>R 22,000</td>
<td>R 32,200</td>
<td>R 1,481,200</td>
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</tr>
<tr>
<td>Zebra, Impala, Blue Wildebeest, Nyala, Tsessebee</td>
<td>5</td>
<td>10</td>
<td>R 500 R 5,000</td>
<td>R 13,200</td>
<td>R 18,200</td>
<td>R 98,000</td>
<td></td>
</tr>
<tr>
<td>Zebra, Impala, Blue Wildebeest</td>
<td>49</td>
<td>5</td>
<td>R 500 R 2,500</td>
<td>R 2,100</td>
<td>R 6,700</td>
<td>R 32,800</td>
<td></td>
</tr>
</tbody>
</table>

2075 Hunter days 193 Hunters KNP Income in US $ and SA Rand $1,373,308 R 8,926,500

<table>
<thead>
<tr>
<th>Safari Packages for Visitors Hunting (Open Market)</th>
<th>Qty</th>
<th>Day</th>
<th>Daily Fee</th>
<th>Total Daily</th>
<th>Trophies</th>
<th>Total Price</th>
<th>SANP Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big Five Classic: Elephant Bull, Black Rhino, Lion, Leopard, Buffalo</td>
<td>2</td>
<td>30</td>
<td>$1,500</td>
<td>$45,000</td>
<td>$160,000</td>
<td>$205,000</td>
<td>$410,000</td>
</tr>
<tr>
<td>Big Five: Elephant Bull, White Rhino, Lion, Leopard, Buffalo</td>
<td>15</td>
<td>30</td>
<td>$1,500</td>
<td>$45,000</td>
<td>$85,000</td>
<td>$130,000</td>
<td>$2,950,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Lichtenstein's, B. W'beest</td>
<td>5</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$13,600</td>
<td>$19,600</td>
<td>$98,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Roan, B. W'beest</td>
<td>5</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$13,600</td>
<td>$19,600</td>
<td>$98,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Eland, B. W'beest</td>
<td>5</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$13,600</td>
<td>$19,600</td>
<td>$98,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Lichtenstein's, B W'beest</td>
<td>5</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$19,600</td>
<td>$29,600</td>
<td>$98,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Roan, Blue Wildebeest</td>
<td>5</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$19,600</td>
<td>$29,600</td>
<td>$98,000</td>
</tr>
<tr>
<td>Buffalo &amp; 6 Plainsgame: Zebra, Warthog, Kudu, Impala, Waterbuck, B. W'beest</td>
<td>35</td>
<td>15</td>
<td>$400</td>
<td>$6,000</td>
<td>$404,000</td>
<td>$700,000</td>
<td>$3,004,000</td>
</tr>
</tbody>
</table>

1410 Hunter Days 77 Hunters KNP Income in SA Rand and US $21,645,000 $3,330,000

Grand Total 3485 Hunter Days Grand Total 270 Hunters Total KNP Income in SA Rand and US $30,571,500 $4,703,308