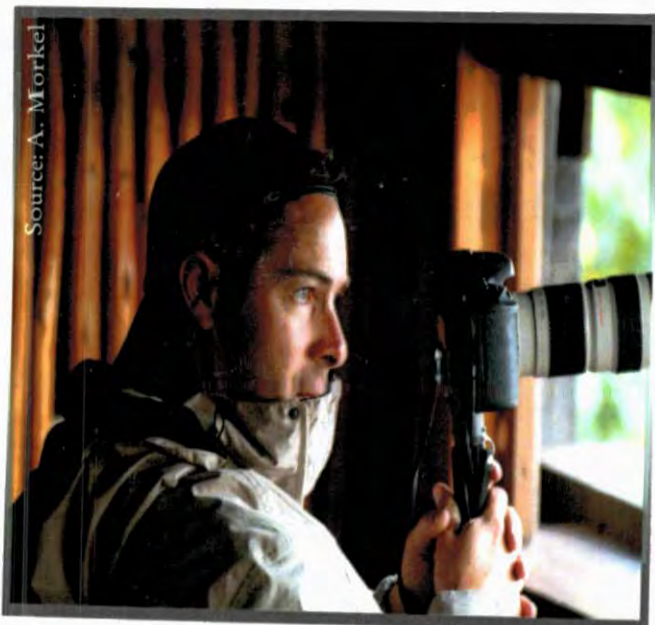


# THE STORY OF THE WHITE RHINOCEROS



Editor: J.G. du Toit





Wildlife has always been a passion of mine and for a long time I have been working on the idea of dedicating my retirement to making a difference in this regard. I now have the opportunity to contribute something meaningful towards a cause that is close to the hearts of my fellow South Africans.

The South African Breweries (SAB) and I recently launched the SAB-Boucher Non-Profit Company. The NPC aims to raise enough money to register South Africa's rhinos on the DNA database established and run by the Veterinary Genetics Laboratory (VGL) at the Faculty of Veterinary Science, University of Pretoria at Onderstepoort. The initial target is to raise R1-million. By buying this book you will contribute to this fund.

While the SAB-Boucher NPC will initially focus on its most pressing concern, namely the safety of South Africa's rhino, it is expected to expand its reach in future to other species under threat, whose DNA will be included in the database.

Foreword by Mark Boucher



# THE STORY OF THE WHITE RHINOCEROS



**Editor: J.G. du Toit**

2013

*Dedicated to the staff of the former Natal Parks Board that saved the white rhinoceros from extinction in the early 1900's*

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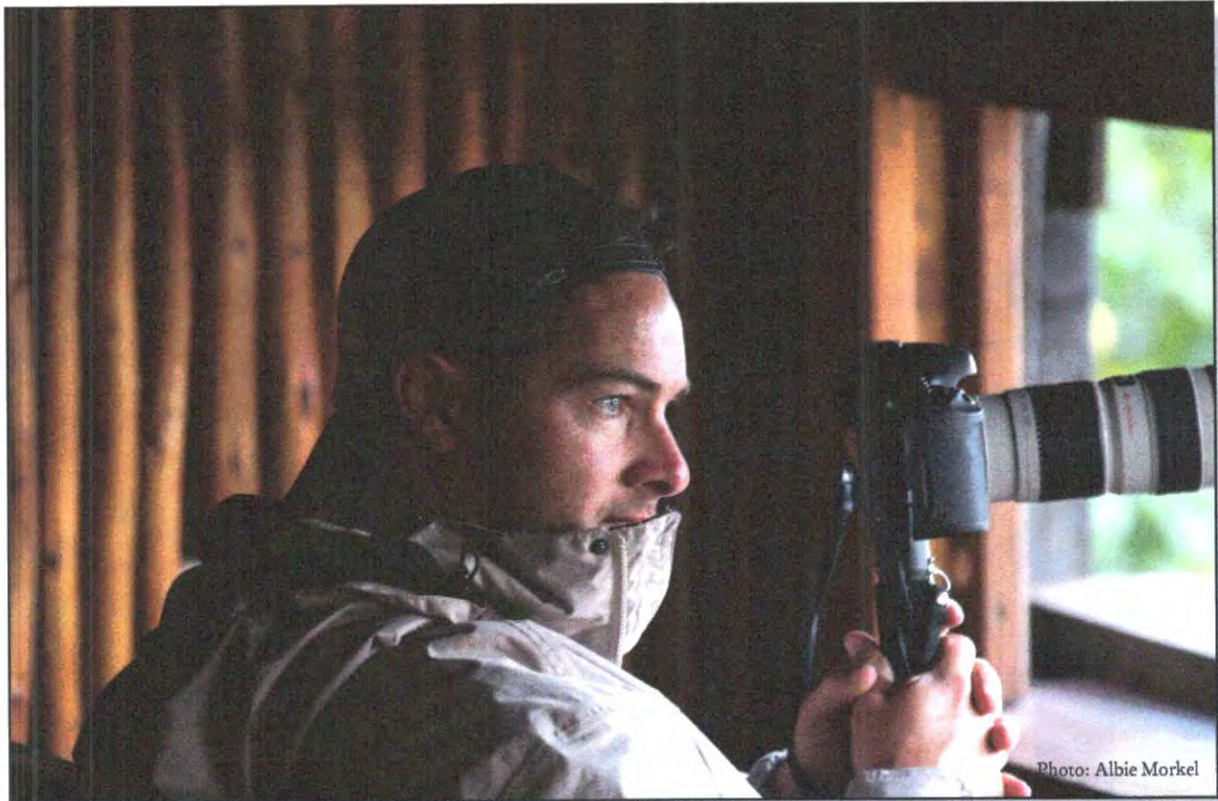
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## FOREWORD

The 668 rhino's killed in South Africa during 2012 is now a tragic matter of public record. It is very sad that we predicted the figure to reach a new record of over 600 by midyear, and still seemed helpless to stop the tragic killing of so many of this majestic and increasingly threatened species.

As a passionate conservationist it would have been easy to blame the authorities and rhino activists for incompetence or a lack of interest. It is worrying that the heart-wrenchingly high poaching figures were achieved despite the enormous and often heroic efforts of so many conservationists, police officers and rhino farmers. For sure, there are things that could have been done better or faster. But by and large the leadership of the public and private sectors demonstrated commitment to curbing the seemingly endless rise in carcasses found with their horns removed.



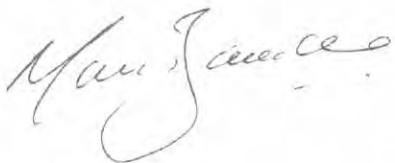
The key question remains: how is it possible that rhino poaching continues unabated despite the hard work and efforts of so many well-intentioned institutions and individuals? As a sportsman, I am not an expert on conservation policy, although personally, like many others, I am very concerned about the current situation. From years on the cricket-field I am used to a situation that if a team is well prepared and performs at its best - the results usually follow. Sadly this doesn't seem to be the case with our Rhinos. It is this insight which leads me to start wondering; whether the rules of the game may not be the problem? How is it



possible that a rhino can be worth more dead than alive? Rhino farmers are increasingly weary of buying new rhino as the cost of protection and security has increased dramatically. Conservation agencies are not allowed to benefit from the value of the horns of animals dying a natural death and thus invest scarce resources into the future of the species. Legal trading of rhino horn is banned but the illegal trade across international boundaries seems to flourish?

It is a privilege to write the foreword to this valuable publication. My intention is to advance the debate on the best route towards protecting the future of the rhino in Southern Africa, and ultimately Africa. The statistics indicate that current solutions are not working which leads me to believe that we all now need to work together towards a common solution. Hopefully then statistics will reverse in favour of our rhinos. The potential solutions are all complex and carry substantial risk. It is not a situation that is conducive to easy solutions. But one thing I am sure of - we need a reliable and effective management system so that the exact state of the rhino population is known and key trends can be tracked. The authorities must have the information to guide their decision-making on a day to day basis. It is also important to be able to link poachers with crime scenes and have solid evidence that can withstand scrutiny in court. This could only be possible through the rapid expansion of the Rhino DNA Index System (RhODIS) established at the Veterinary Genetics Laboratory (Onderstepoort) at the University of Pretoria.

I am very excited about my partnership with the South African Breweries and our joint effort to set up the SAB Boucher Conservation Trust and launch the "Rhino in Safe Hands Campaign". We need more partnerships like this and I would like to encourage each and every reader of this book to work together for the day where illegal poachers will be the losers and the rhino will be the winner.



Mark Boucher  
February 2013.

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## MESSAGE FROM THE CHAIRMAN

The threat facing the rhinoceros population is a major concern to all who are serious about conservation and sustainable development. The inside cover pages of this publication show the trends in the rhinoceros populations over the past decades. These figures tell a sobering story about a magnificent species that is under serious threat.

The prospect of the rhinoceros facing extinction twice in my lifetime is hard to grasp. Despite the dedicated efforts of the conservation authorities and private game farmers, the situation seems to be increasingly worse for the rhino. This book demonstrates the enormous and heroic efforts of those responsible for bringing the rhino back to life when it was faced with near-certain extinction not so long ago. The book also outlines some of the essential decisions and actions required to turn the situation around today. I would like to encourage all those who are serious about saving the rhinoceros to engage and debate the potential solutions.

The South African Breweries (SAB) is pleased to support this book as one of the many worthwhile efforts to conserve our country's natural environment. The company has a history of more than a century in the country, based on our commitment to deliver superior value to South African consumers, retailers and society. For us the *rhino is symbolic of the value of the natural environment*. As such, we are very proud of SAB Boucher Conservation, our rhinoceros protection partnership with Mark Boucher as one of the country's top international cricketers. His close association with Castle Lager over more than a decade also underpins the "Rhino in Safe Hands" campaign.

At SAB we take our leadership role in the country both seriously and quite personally. Because for us, South Africa is not a market. South Africa is our home, and part of who we are.



NJ Adami  
March 2013



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Last but not least to my family Birgit, Elke and Jaco who patiently bear with me while I was putting this book together.



J.G. du Toit

Pretoria  
February 2013



Appendix

1-8

## APPENDIX 1:

# LETTER TO PRESIDENT ZUMA – J.G. du Toit

Dear President Zuma,

We need you to help to conserve our rhinoceros population. You will in the future be known as either the president who was responsible for the survival of the rhinoceros or for the extinction of the species.

Your forefathers (Tshaka and Dingane) conserved the last rhinoceros in northern Zululand. This remnant population was saved from extinction by the former Natal Parks Board. South Africa has some 20 000 rhinoceroses (18 000 white and 2 000 black) which, theoretically, could sustain annually an illegal hunting off-take of about 6% (1 200 animals) of the population. If the trend in numbers hunted illegally continues at its present rate this threshold will be exceeded in 2013. According to the model built on the current poaching trends by Rowan Martin, a well-respected biologist from Zimbabwe, the South African rhinoceros population will be extinct by 2024.

**My plea to you, Mr. President, is that you will send in 2013 a well-motivated delegation to the next CITES meeting to make a proposal to the world to consider the legal trade in rhinoceros horn.** Delaying the submission of a proposal for a legal trade in rhinoceros horn from 2013 to 2016 will result in an additional cost of **US\$ 996 million** (R7.5 billion) arising from the continuing loss of rhinoceros (1 300 animals) between 2013 and 2016. More than 260 poachers will be killed that will further aggravate poverty in the communities.

Historically poaching accounted for 0.1% of the rhinoceros population in South Africa. During 2006 the hunting system was abused to deliver horn to the medicinal market. The justification is to “farm with horn” and not to stop the poaching. The horn production of a rhinoceros cow is two kg every two years. A farmer will receive on average R300 000 every two years from a cow. **The land-use value of rhinoceros managed under dehorning is at least 100 times greater than that of domestic livestock.**

Should the Department of Environmental Affairs elect not to submit a proposal to the next CITES COP (March 2013), it should be answerable to the nation for this huge loss in income. This is another factor that should influence the decision whether or not to submit a proposal for legal trade to the coming CITES COP. South Africa must approach the CITES Parties with the argument that, despite a massive commitment to law enforcement, losses are escalating and it needs the legal trade to ensure that the losses do not become unsustainable. What can we lose by trying, Mr. President? SA will be seen as a Party which, despite its past conservation record, has now allowed illegal hunting to get out of control and cannot be trusted to implement a legal trade effectively.

The performance of our law enforcement is as follows: The loss increased from 1 rhinoceros every 4 days in 2008 to 1 rhinoceros every 3 days in 2009 and to 1 rhinoceros every day in 2010. Therefore, to think that SA will win the battle against poaching is naive.

By any objective measurement the CITES ban on trade in rhinoceros horn has failed to prevent rhinoceros poaching. During the 32 years that the trade ban has been in place the international conservation community has probably spent in excess of \$100 million to save the rhinoceros. Yet during that time at least 12 countries in Africa have lost their rhinoceros populations. The African black rhinoceros population has declined from 65 000 to about 3000. These figures are flattered by the recovery of rhinoceros populations in South Africa and Namibia, and the real comparison is that African rhinoceros populations outside of these two countries have declined to fewer than 1 000 animals in 2009.

**Economics:** At the current price in South Africa the legal harvest of horn from 15% of the white rhinoceros population would yield R150 000 000 per annum (about US \$20 million), which far exceeds the amount currently spent on rhinoceros protection and conservation from all sources, nationally and internationally. The South African rhinoceros population has the capacity to produce more horn than has been factored into the above arguments. This could be expected to have an impact on the prices realised in the market place. Even if the price falls by a factor of ten, however, it would still be worthwhile for rhinoceros owners to harvest and sell the horn. Economics would then dictate that poaching, which should then be an even higher risk enterprise than it is at the present time, would no longer be worthwhile. The value currently captured by middlemen would be retained by the producers and the consumers.

**Biological issues:** It has been argued that a rhinoceros with its anterior horn reduced to a stub would be vulnerable to predators, and that cows could not defend their calves. This, mostly, does not apply to rhinoceros on private land in South Africa where there are very few large predators. Previous surveys have not recorded any mortalities due to predation, but the current survey lists five immature white rhinoceroses killed by lions. A larger percentage of mortalities, was due to rhinoceroses being killed by adult male rhinoceros, however, and this figure might be reduced if horns are removed. It is also possible that a rhinoceros with a horn stub may be more vulnerable to a rhinoceros with a full horn in any social conflict. While there is no indication that rhinoceroses are in any way inconvenienced by having their horns docked, there may be unexpected social consequences.

**Comparisons with the ivory ban:** Some conservationists argue that the CITES ban on the trade in elephant *Loxodonta africana* tusks has been successful, yet recent media reports speak of a resurgence in elephant poaching. Nonetheless, they argue that a continued trade ban on rhinoceros horn would achieve the same success if diligently applied. The fundamental difference is that there are still large numbers of elephants, most living outside formally protected areas, and that main market for the curios produced from ivory is in the West. The main use of rhinoceros horn is in traditional Chinese medicines. It is a cultural use by people not reachable by the dramatic public hysteria of the mainstream conservation NGOs of the West. Chinese use small quantities of rhinoceros horn in medicines not because they are perverse and want to destroy rhinoceroses, but because they believe in its efficacy, and

have done so for several thousand years. Furthermore, if rhinoceros horn can be produced in sufficient quantities to satisfy the demand for it, at no risk to the life of the rhinoceros, there would seem to be little logic in trying to ban its use. The consequence of consigning the rhinoceros horn trade to criminals is the decline of the rhinoceros populations. The consequence of allowing the owners of the rhinoceros to trade in harvested horn will be more investment in rhinoceros protection and more habitat for rhinoceros.

The question of whether a legal trade in African rhinoceros horn (initially only white rhinoceros, but in time black rhinoceros as well) would be detrimental to the conservation of Asian rhinoceroses does require serious attention. It is well known that African and Asian rhinoceros horns are easily distinguishable and that the price for Asian horn is many times higher than for African horn. Law enforcement need not, therefore, be compromised by legalising African horn.

**Rhinoceros horn stockpiles:** It has been postulated that the current size of the rhinoceros horn stockpile owned by the private sector is about 3000 kg, while State institutions hold 12 000 kg of rhinoceros horn. At the current price of R150 000 per kg in South Africa these stockpiles are worth R2.3 billion. Most of the private owners of rhinoceros horn would like to sell their rhinoceros horn; the view of the State has not been canvassed. Clearly, however, the legal sale of rhinoceros horn has the potential to generate significant revenue for the individuals and organisations protecting most of the world's white rhinoceroses and black rhinoceroses.

**“Rhinoceros face a grave crisis and those who purport to hold the survival of the five species above everything else must be prepared to examine all available options with open minds and a will to seek lasting solutions.....including acceptance of the possibility that restricted avenues of trade may be part of the solution.”**

**Incorporating DNA profiles of animals into the Database:** Recent work on the DNA of white rhinoceros carried out by the Onderstepoort Veterinary Genetic Laboratory in Pretoria shows that an accurate match of rhinoceros horn to blood or tissue samples can be achieved. This can provide strong evidence in a court of law. It has been suggested, therefore, that a DNA profile of all white rhinoceroses should be kept as part of the database. In the event of any dispute regarding the origin of horns, or the need for forensic matching of horns to a particular animal, this can then easily be done. The profile of the specific animal can be kept on the database together with its other details and these can then be matched with poached horn.

With an audit system in place and the system being audited by removing illegal activities, a proposal how to legalize the trade and ranching with horn must be taken to Cites at COP in 2013. The philosophy to KEEP OUR RHINOS ALIVE is the major key for the survival of the species. The rhinoceros is a world heritage and South Africans are only custodians of these species. All world citizens must take hands and pool their resources to achieve this philosophy.

## APPENDIX 2:

## THE RHINOCEROS FARMER'S STATUTORY BURDEN - I. du Toit

South Africa is experiencing the highest incidence of rhinoceros poaching in history and it is fair to state that the survival of the species is at risk if this trend continues. The custodians of rhinoceroses in this country are divided into two distinct groups: the national and provincial governmental nature conservation authorities and the private game farm owners. This short essay is dedicated to the challenges faced by private game farm owners and potential private rhinoceros owners in their effort to keep, breed and protect rhinoceroses in South Africa. It also serves to highlight the challenges faced by South Africa's emergent black farmers and communities who may wish to enter the rhinoceros-farming industry.

At the outset it must be noted that black and white rhinoceroses in South Africa are listed, classified and governed by the Threatened or Protected Species Regulations (in short referred to as TOPS regulations) which regulations are promulgated under the National Environmental Management: Biodiversity Act 10 of 2004 (in short referred to as NEMBA). If any private individual or community has access to a suitable piece of farm land (either as owner, tenant, manager or beneficiary) and wishes to purchase and keep rhinoceroses on such land, such individual or community has to comply with the prescriptions of NEMBA, TOPS and several other statutory requirements. The procedural and logistical burden that these statutory requirements place on the private rhinoceros owner, coupled with the security risk posed by poaching, are so burdensome that more often than not, the incumbent rather elects to pursue other game species and avoid rhinoceros ownership altogether. This spells danger of extinction in capital letters to the rhinoceros because if no one is interested in buying and keeping rhinoceroses, then no one is protecting rhinoceroses.

The legal requirements applicable to any person who wants to keep and breed rhinoceroses on a suitable piece of land can be summarised as follows:

- 1) This essay will not comprehensively deal with the entire process of buying the land, fencing the land, obtaining a certificate of adequate enclosure, applying for and registration of a game farm, game trader, captive breeding operation, conducting habitat assessments for suitability and/or commissioning a biodiversity management plan. The rather cavalier assumption is made in this essay that the potential rhinoceros owner is already adequately set up in all of these respects and is now ready to start buying rhinoceros.
- 2) NEMBA contains a long list of restricted activities in relation to TOPS animals. A short excerpt taken from this list reads as follows: *“hunting, catching, capturing, searching, pursuing, driving, lying in wait, gathering, collecting, plucking, picking parts of, cutting off, chopping, importing, exporting (both internationally and/or inter-provincially), having in possession, exercising physical control over, growing, breeding, in any way propagating, causing it to multiply, conveying, moving, otherwise translocating, selling, trading in, buying, receiving, giving, donating, accepting as a gift, in any way acquiring or disposing of*



*a specimen of a listed TOPS animal*". All these things are restricted activities and the list of such activities ends off by saying, in addition to all of the above: "any other activity involving a TOPS animal".

- 3) NEMBA then states that no person may conduct any one of the above-mentioned restricted activities without first obtaining a permit from the relevant issuing authority, which in the case of rhinoceros is the local provincial nature conservation authority.
- 4) Our potential rhinoceros farmer who wishes to purchase, keep, manage and hopefully successfully breed rhinoceroses should therefore take cognisance of the above-mentioned list of restricted activities and, being a law-abiding citizen, should comply with all of it.
- 5) Now, in order to get rhinoceros onto his farm, our farmer must purchase rhinoceroses. This involves the following restricted activities (underlined phrases):
  - 5.1 searching for the animal on the seller's farm (this may involve the effort and cost associated with a helicopter);
  - 5.2 when the rhinoceros is found, it must be pursued and darted (this involves the effort and cost associated with a registered veterinarian);
  - 5.3 when the rhinoceros is darted it must be captured and loaded onto a suitable vehicle (this involves the effort and cost associated with an approved wildlife capturing team).
  - 5.4 when the rhinoceros is loaded it is then moved by road to the destination farm where it is released (this involves the effort and cost associated with a transport vehicle suitable for Big Five game movements).
- 6) The statutory requirements for the process described above are burdensome. An export permit is required for the originating farm; an import permit is required for the destination farm. If the move is taking place within the same province then an internal movement permit is required. The veterinarian must have a standing permit to dart rhinoceroses (the same veterinarian will require a different standing permit for each one of the nine provinces).
- 7) NEMBA and TOPS furthermore state that the local authorities may impose their own additional conditions to the permits issued in respect of above-mentioned restricted activities. In recent times such conditions prescribe that an official of the issuing authority must be personally present during certain of the activities. This means the potential rhinoceros farmer is dependent on the availability of overworked and underpaid government officials. These officials are often unable to attend the farm because game farms are by their nature usually situated in remote locations around the country, and officials have limited resources (vehicles, fuel allowances, cellular phone allowances, etc.). These officials are also only available during office hours. This burden is illustrated by the following examples:
  - 7.1 The rhinoceros finds itself *en route* in a transport vehicle and arrives at the destination farm at 21h00 in the evening (the process of searching, finding, darting, capturing, loading and travelling often takes up an entire day). The destination farm owner now finds that no nature conservation official is available to unload the animal (notwithstanding the fact that the farmer made every effort to arrange this in advance). The farmer must

now either break the law and unload the animal himself or he must risk the life of the rhinoceros by leaving it in the transport crate overnight and unload it after 08h00 the next morning when the nature conservation official is available.

7.2 The rhinoceros farmer plans to capture and move a rhinoceros to his farm. He arranges and pays for a veterinarian, a wildlife capture team, a helicopter, a suitable transport vehicle and of course he arranges well in advance with the local nature conservation official to attend. On the morning of the planned capture the whole teams arrives on schedule, except for the nature conservation official. Upon enquiry the rhinoceros farmer learns that the said official has been called at the last minute to another commitment. Now the farmers has two choices, either break the law and proceed with the capture or send the veterinarian home, send the capture team home, send the helicopter away, send the transport truck away and re-schedule the entire operation to a new date when the nature conservation official is able to attend.

- 8) If the game farmer manages, in spite of the above-mentioned challenges, to obtain the necessary permits and get some rhinoceroses onto his farm he then immediately faces a grave security risk to himself, to his staff and most importantly to his live rhinoceroses that are carrying sought-after horn on their noses.
- 9) Once again, presuming that the rhinoceros farmer already has a military-like security force in place on his farm (which involves a great deal of effort and cost), he may nonetheless choose to de-horn his rhinoceros in order to protect it against the threat of poachers. This exercise involves another long list of restricted activities. Darting the rhinoceros is a restricted activity, cutting off a rhinoceros horn is a restricted activity and possessing a rhinoceros horn is a restricted activity, moving a rhinoceros horn is a restricted activity. Once again, the law requires that a registered veterinarian (who must be in possession of a valid standing permit for the specific province where the rhinoceros is located) must be present during the de-horning process, in addition to the nature conservation official who must yet again be personally present, otherwise the farmer risks prosecution for non-compliance with permit conditions. Certain provincial authorities insist that the veterinarian must personally conduct the dehorning. The farmer is conducting no less than four restricted activities when dehorning a single rhinoceros.
- 10) In addition hereto the nature conservation authorities recently imposed a further permit requirement that the farmer must also complete a DNA test kit when he dehorn a rhinoceros. This is a commendable scientific effort but the implementation thereof is creating practical and logistical difficulties for the rhinoceros farmer. The DNA kits are only available from one University situated in Pretoria, Gauteng, and the farms are scattered over nine provinces of South Africa. The local provincial authorities more often than not do not have any DNA kits available so the farmer (wanting to comply with his permit requirements) must obtain the said kits at his own cost and on his own effort from the University of Pretoria. The DNA kit involves drawing blood from the rhinoceros, cutting an ear-notch from the rhinoceros and taking a hair sample from the rhinoceros, all three of which are, very technically speaking, restricted activities in terms of TOPS.

- 11) Darting and immobilizing a rhinoceros presents an inherent risk to the life of the animal (very similar to the risk of placing a human being under general anaesthetic) so the cautious farmer would prefer to de-horn the rhinoceros simultaneous with the capturing and moving process because the rhinoceros is darted and immobilized for this exercise anyway). Now the logistics of complying with the permit requirements gets really confusing.
  - 11.1 Firstly, the farmer cannot apply for a possession permit for the horn before he has actually cut the horn off the rhinoceros (a horn still attached to a live rhinoceros does not constitute a separate specimen from the rhinoceros itself).
  - 11.2 Secondly, the farmer cannot apply for a possession permit for the horn unless he is able to provide a micro-chip number, length and weight measurements for the horn. All of these are only done after the horn is cut off and it may only be done if and when a nature conservation official is available to personally supervise the exercise.
  - 11.3 Thirdly, the farmer cannot apply for a permit to move the horn to a place of safety unless he already holds a possession permit. The farmer wants to move the horn because the risk of keeping the horn on the farm is simply too high. Wildlife capturers and veterinarians have been robbed at gunpoint by poachers looking for rhinoceros horn.
  - 11.4 So once again the farmer must either risk the life of the rhinoceros by leaving the horn on the rhinoceros or the farmer must risk his own life and break the law by cutting off the horn but then keeping it in his possession illegally, or moving it to a place of safety illegally until he can apply for the necessary permits and comply with the legal requirements.
  - 11.5 A place of safety is typically a safety deposit box in a bank in the city or town closest to the farm, much like people who keep other valuables such as diamonds, firearms and expensive jewellery in bank safes.
  - 11.6 Applying for the horn-possession permit requires a microchip, a DNA sample kit sealed by a registered veterinarian, a visit by the local nature conservation official to measure, weigh and register the horn (if and when such official is available subject to his budget and time constraints). Microchips and DNA sample kits are not necessarily always available from the authorities and the farmer often has to wait several days or even weeks to obtain these items.
- 12) All of the above restricted activities which require permits must be read and considered in light of the fact that different provinces have different rules relating to permit applications. One province takes four to six weeks to consider and issue a single permit application, other provinces can ONLY consider and issue permit applications on Tuesdays and fortunately another province will consider and issue permit applications within two or three days.
- 13) If, against all the above-mentioned odds, our rhinoceros farmer manages to keep and breed rhinoceros successfully on his farm, we can proudly count him in as custodian and conservationist of an endangered species. The farmer has no viable means to profitably keep and breed such rhinoceroses, however, because the cost of the land, the cost of the farming operation, the cost of security, the cost of feed in winter months, the veterinary costs in caring for the rhinoceroses and many other hidden costs are stacking up against the farmer and he can generate a very limited amount of income from the live rhinoceros alone.

- 14) The fact that South Africa is experiencing the highest incidence of rhinoceros poaching in history has sparked a legislative clamp down on the rhinoceros industry. On the one hand this is arguably a natural reaction by authorities against criminal activities but on the other hand it also means by necessary implication that the law-abiding rhinoceros farmer is pestered by legal red tape and every move he makes is scrutinized with hawk's eyes. Another example is the following:
- 14.1 A rhinoceros farmer concludes an agreement in terms whereof he is purchasing four rhinoceroses and he makes his arrangements to capture and move the rhinoceroses to his farm. This includes applying for the necessary permits. The permits are issued and the team as described above arrives on the seller's farm and commences with the capture operation. The veterinarian finds, however, that one of the rhinoceroses is not fit to be darted and moved (this can happen for a number of reasons and the best interest of the rhinoceros will always be served first). The farmer therefore moves only three animals instead of four. Six months later the farmer is confronted by the nature conservation authorities and/or the police (both of which are, as a result of the high poaching figures, vigorously investigating and scrutinizing every single permit ever issued). The rhinoceros farmer suddenly finds himself a suspect in a criminal investigation because his permit (with a total of four rhinoceroses) and the actual number of rhinoceroses (three) on his farm do not add up. If this same rhinoceros farmer happens to own more than one farm in different provinces and has many rhinoceroses on such farms, then this example may repeat itself several times in a specific capture season and the investigations against the farmer intensify because he now faces several incidents of non-compliance or so-called irregularities regarding his permits.
- 14.2 Just imagine for one moment any other commercial farmer, like a sheep farmer or a cattle farmer, and place upon such farmers the above-mentioned burden of permits and legislation. Every single sheep or cow purchased, sold, moved, captured or even killed requires various permits and personal visits by local law-enforcement officials. Or imagine what would happen to the sheep-farming industry if every sheep farmer were legally required to have a permit, a microchip and a DNA sample for each and every piece of wool shorn from his sheep. It is safe to assume that most farmers will get out of the farming business altogether under such circumstances. This is unfortunately exactly what is happening to rhinoceros farmers in South Africa.
- 14.3 It deserves to be mentioned that the above-mentioned risks of prosecution exist in the letter of the law. Reputable game farmers usually have good business and working relationships with their local conservation authorities and in an ideal world apparent irregularities should be resolved amicably. This does not detract from the fact that legal mechanisms exist to persecute the otherwise law-abiding game farmer whose main purpose is the proliferation of the rhinoceros population on his farm. Such mechanisms are burdensome to the farmers.
- 15) In strict contrast to the above, the rhinoceros farmer then discovers that his rhinoceroses in fact have the ability to generate a very lucrative income from their horn without having to carry the legal burdens described above. There is an enormous demand for rhinoceros horn and literally thousands of people are willing to pay top dollar for rhinoceros horn. If our rhinoceros farmer wishes to utilize this lucrative market and still remain a law-abiding citizen, then he can easily do so by obtaining a single permit.

- 16) This permit is a hunting permit. It involves, by necessary statutorily enforced implication, the death of the rhinoceros. The farmer can legally hunt the rhinoceros and sell the rhinoceros horn as a hunting trophy and he needs one hunting permit only.
- 17) It is an unfortunate statistical fact that many rhinoceros farmers have chosen the easy way out of conservation and have resorted to killing their own rhinoceroses. Some farmers go so far as buying rhinoceroses for the sole purpose of hunting them immediately afterwards. That is after all the only legal way they can generate any form of profitable income from this magnificent and endangered African animal. Farmers need not bother with the statutory burden of keeping and breeding rhinoceroses and in the process try to save the species. Legally it is much easier and much more profitable to simply kill them all.
- 18) When we consider this tragic situation, it becomes clear that the private owner custodians of black and white rhinoceroses in South Africa, who have been credited in the past with making a dramatic saving contribution to the species, are being forced by the statutory burden placed on them, to become the killers of very same species. The legal requirements involved in rhinoceros farming simply make a rhinoceros worth more dead than alive.

## APPENDIX 3:

**CODE OF PRACTICE FOR THE  
INTRODUCTION OF  
WHITE RHINOCEROS**

**Adapted from J.G. du Toit (1998) and  
P. Morkel & A. Kennedy-Benson (2009)**

**Recipient Area**

- Make sure that you become the legal owner of the animals. To claim ownership you should be able to identify the rhinoceros (by means of ear notch codes and microchip implants). Marked animals are important to prove ownership in poaching cases.
- The area must have enough and good white rhinoceros habitat to sustain the envisaged population to be introduced. The white rhinoceros will compete with other grazers.
  - White rhinoceroses are a high-density species and their numbers on small farms are determined by the carrying capacity of the area, which can vary from 1 to 4 rhinoceroses per 100 hectares. (In the Umfolozi Game Reserve it is 3,2 animals per 100 ha).
- Open drinking water is required, as the animals like wallowing in mud during the hottest part of the day.
  - Perennial rivers, which rise rapidly during the rainy season, can cause animals to drown if they are trapped on islands, as white rhinoceroses can't lift their heads in order to swim.
- Fenced ranches must comply with the minimum standards required by the conservation authorities and the personnel should be trained to maintain the perimeter fence.
  - Rhinoceroses may become entangled in internal stock fences. Animals unaccustomed to stock fences should not be exposed to such situations.
  - Mortalities may occur on ranches with sheer cliffs and dongas, as rhinoceroses have poor eyesight and when alarmed will readily run over a precipice if they do not yet know the new area. Large dongas and cliffs should be fenced off.
  - Corners of camps should be reinforced with cables. Drums cut in half lengthwise and filled with water can be placed here.
  - After release, animals tend to move back in the direction of their point of origin, and will therefore first encounter fences on that side of the property. For instance, a rhinoceros from the Kruger National Park released in the Thabazimbi District will tend to move eastward.
- The monitoring teams must have vehicles, equipment and communication systems necessary for the monitoring the white rhinoceros. The team must be well trained for dealing with possible emergencies such as poaching and breakouts.

- Preventative measures such as vaccinations should be taken when introducing black rhinoceroses to an area where there are diseases present that they have never been exposed to (e.g. anthrax, trypanosomiasis).
- On large game ranches with elephants, young elephant bulls may leave their maternal herds during puberty and attack and even kill rhinoceroses. During droughts, hippopotami and rhinoceroses fight at feeding areas. Fighting may occur, especially among bulls, if rhinoceroses are released on ranches with resident animals. Under NO circumstances should young animals be relocated to areas where there are large territorial bulls. Losses to predation of calves may occur on game ranches harbouring lions, hyaenas or crocodiles.
- Release point
  - The release site should be as close to the centre of the property as possible.
  - The off-loading ramp should be 1,2 m high and 5 m wide, with a slope of 35°. Sufficient sandbags should be available to fill any gaps between the truck and the ramp.
  - The off-loading sites should not be closer than 200 m from open water. Rhinoceroses under heavy sedation may be startled during the off-loading process and stampede into the water.
  - Use long-acting tranquillizers where animals are captured and released from veld to veld.
  - Restrict human activities on the ranch for the first 14 days after release of the rhinoceroses. Don't disturb the animals by boundary patrols. Move away immediately, to prevent startling the animals and causing them to break through the fence.
  - Do not off-load rhinoceroses at night, especially if there is no moon; they may fall into dongas or over cliffs. Rhinoceroses can be off-loaded into dimly lit bomas.
  - Restrict the number of spectators to the minimum. After being transported, rhinoceroses are aggressive and can overturn vehicles with spectators in the vicinity.
  - Inform your neighbours in writing if this is the first rhinoceros introduction onto your property.
- Social requirements of the animals
  - The animals' social requirements must be met. As gregarious animals, white rhinoceroses should have 'company' on the new ranch. To prevent fighting, groups of individuals from the same area that know each other should preferably be introduced to the new ranch.
  - The ideal minimum number for re-establishing a white rhinoceros population on a game ranch is one dominant bull, one sub-adult bull, two cows and two heifers.
  - To prevent losses due to fighting between bulls, 500 ha should be allocated to each breeding bull on farms smaller than 1000 ha (territorial bulls comprise about 10% of the total population).
- Type of animal.
  - Young healthy animals with a good breeding life ahead of them are the best animals to introduce. Ideally the rhinoceros should be between about four and 15 years old.
  - Calves and young sub-adults lack confidence and physical strength and are easily pushed around and even killed by older animals.
  - Old rhinoceroses generally don't settle as well in a boma or after release and only have a limited breeding life ahead of them. Heifers or young cows between four and six years old, before they have bred, are ideal to move to new areas.

- Moving cows with very young calves (under 9 months old) is extremely risky and almost always results in the death of the calf. Moving cows with calves under 18 months is not recommended.
- Cows close to calving should also not be moved because of the anaesthetic risk and because of the chance of the cow aborting or giving birth in the boma. Without ultrasound equipment it is difficult to accurately gauge the stage of pregnancy – there is only the appearance of the cow’s belly, udder, and vulva to go on. The size of the previous calf can also help give an indication of stage of pregnancy. The best option is a cow in early or mid-pregnancy with a calf of 18 months or older.
- Older, more experienced bulls, not younger than 10 years old, should be used as breeding animals. Younger “back-up” bulls should also be included. The breeding bull must be a robust specimen.

### Time of the year for translocation

- White rhinoceroses are usually translocated in the dry/winter season because:
  - Dry field conditions – better for the movement of vehicles and staff and the recovery of rhinoceros (less problems of getting stuck in mud, crossing rivers, etc.).
  - Cooler ambient temperatures – capture process is safer as there is less chance of hyperthermia and its associated problems at temperatures below 25° C. The ideal environmental temperature range to capture and transport animals is 15–25° C.
- There are disadvantages of moving rhinoceros in the dry/winter season, however, especially late in the season:
  - Body condition of white rhinoceros is often less optimal than during the wet season when grazing material is adequate.
  - Field conditions are poor and declining and this can be critical when an animal is released into a new area where it has to settle down, find the boundaries, water sources and best feeding areas, adapt to unknown plant species and fit in socially with established rhinoceroses.
  - Rhinoceroses are very sensitive to cold, especially if their body condition is down. When temperatures drop below 10° C transport of the animals is not recommended.
  - In the dry season, rhinoceroses may get stuck in mud in marshy or low-lying areas. It is unwise to relocate rhinoceroses during severe droughts. A survey of 293 white rhinoceros deaths on private property revealed that 14% died as a result of drought. These mortalities could have been prevented by supplying lucerne as supplementary feeding during droughts. Boma-trained rhinoceros will take lucerne more readily than other animals.



## APPENDIX 4:

# CODE OF PRACTICE FOR HANDLING RHINOCEROS ORPHANS – P. Nieuwoudt

*“Each one of us, however ordinary we may appear, is capable of extraordinary acts. When you believe in yourself, you can achieve the impossible” – Lewis Gordon Pugh*

The service of a veterinarian might not be immediately available to take care of a poached rhinoceros case. Therefore it is in your hands to save the rhinoceros's life. Do not panic. Stick to the basics. Do not be intimidated by the size of the animal. Mean mass of an adult bull is 2 100 kg and an adult cow 1 650 kg.

### What must be available?

- List of emergency numbers: veterinarians, pilots, transport operators, etc.
- List of products necessary for treatment

### What can be expected from the case presented?

- 1) Hyperthermia or hypothermia (This is the temperature of the animal: this animal is either too hot or too cold)
- 2) Hypoglycaemia (low blood-sugar levels – glucose powder/honey or syrup on the tongue)
- 3) Dehydration (fluids)
- 4) Stress
- 5) Shock: the animal's blood pressure will fall dramatically
- 6) Trauma (injury inflicted by bullets or pangas)
- 7) Capture myopathy: Insufficient blood flow to muscle and the insufficient supply of oxygen to muscle tissue.
- 8) Monitor the rhinoceros (respiration, heartbeat, temperature, etc., per minute; mention the normal values). This will also help the veterinarian to make decisions.
- 9) Keep people and noise to the minimum

### Start with emergency treatment in order of importance:

- 1) *The first step is to stabilise the rhinoceros by keeping it warm and comfortable*  
What is the animal's temperature? Do we need to heat him up or cool him down?  
Heat up: Hot fluids through the drip, infrared lights – do whatever you need to do.  
Cool down: Cold water and air movement (wind).
- 2) *Calm the animal to prevent further stress*  
Tranquilize the animal to reduce stress. (Usually starts working after 10 min – if

administered in a good muscle)

Valium is the product of choice – it will stimulate food and water intake

Azaperone – short-acting (about 3–6 hrs)

Acuphase – long-acting (about 72 hrs)

All tranquillisers influence the animal's ability to regulate its body temperature and therefore must be carefully managed to prevent overheating or exposure to serve colds. These tranquillisers are mostly Schedule 5 drugs and can only be prescribed by a veterinarian. Consult your veterinarian. If you can: blindfold the animal and put earplugs in the ears (cotton wool) – this will also reduce the stress. Without the above you or the vet do not have an animal to work with!

### 3) *Positioning of the rhinoceros*

As comfortable as possible. Think about the blood circulation of the animal. Can he breathe properly, diaphragm, limbs (legs)? Cannot leave him in one position for too long – no blood flow, necrosis in the muscles (dead muscle tissue). Aspiration of stomach content into the lungs can lead to severe pneumonia. The pressure in the abdomen can become so great that it interferes with respiration and the animal may succumb as a result. It is desirable to put the injured or ill animal in a proper boma to be able to treat the animal until it is time to release him again. First assess whether the stress of capture and movement of the animal will not cause more harm or injury to the animal or if there is a chance that the animal may recover by itself.

### 4) *Prevent blood loss*

Fluids will help to prevent dehydration, hypoglycaemia, stress and trauma (the body functions can carry on as normal as possible), no or less build-up of toxins in the kidneys and liver. (In normal circumstances the water requirements is about 72 l per day.) This is not the case if you have an injured or ill animal. Then one must rather think about 10% of bodyweight. (If there is an open wound, stop the bleeding by using staaldruppels, pressure bandages, etc.)

## Once the rhinoceros is stable some of the following drugs can be administered:

- Products to provide energy: Dextrose – glucose.
- Vitamins and minerals (useful to stimulate appetite, stimulate metabolism, help with stress): Phosamine Stimulants, Vit. E – stress, Vit. B complex – appetite, Selenium – such as Biosolamine (can prevent capture myopathy and further muscle damage),
- Calcium, Biorem, protexin or diatoms (help with digestion).
- Anti-inflammatory drugs or painkillers such as Phenylarthritis and Finadyne – useful to manage pain and inflammation. Be careful if you suspect an ulcer.
- Antibiotics: Long-acting penicillin or Excenel (broad-spectrum antibiotic in powder form)
- Blood pressure (in case of severe blood loss)

## The feeding requirements of the rhinoceros

This is a hindgut fermenter like a horse – not a ruminant

Stress pack in the water – if he is drinking by himself, or Lectade

Lots of lucerne, hay, grass and teff. Horse pellets

Monitoring of the body temperature, body mass and physical condition is essential – if possible.

### Complications that can be expected

- Colic
- Ulcers
- Impaction (they can block up)
- Diarrhoea
- Capture myopathy

### Samples to be taken

- Faecal sample
- Blood sample – levels of enzymes
- Initially give easy digestible food.
- Play music to make him use to noises and sounds and to distract him from other noises.
- The boma must be strong because captive rhinoceroses will always attempt to break out of confinement.
- The site should be in an area where good-quality natural food is available.
- If possible the site must be close to a reliable water source.
- Large trees are necessary for shade, or else shading must be provided.
- The animal must be protected from cold winds (conveyer belting).
- The boma must be easily accessible to vehicles.
- There must be an absence of or only a minimum amount of gravel and loose rock in the boma to prevent injury to the feet of the animals.
- The area must be protected against veld fires by firebreaks around the boma, and it must drain well in times of rainfall.
- It is desirable to have the shelters in the boma facing north to ensure maximum shade in the summer and maximum sun in the winter.
- A pen of 20 m x 20 m is large enough to keep a white rhinoceros, while a pen of 10 m x 10 m is adequate for a black rhinoceros.
- Remember a proper loading ramp.
- Secure the gates.
- Water troughs should be approximately 1 m wide by 1.5 m long and 400 mm deep.

### REFERENCES

Du Toit, J.G. (2005). Rhinoceros. In: Bothma, J. du P. & Van Rooyen, N. (Eds.). *Intensive wildlife production*. J.L. van Schaik, Pretoria.

## APPENDIX 5:

# CODE OF PRACTICE FOR GREEN HUNTING – P. Bartels, 2009

Darting safaris are still in their infancy and there is as yet no clear code of conduct. Nevertheless, the following preliminary code will serve as a basis for developing a detailed code of conduct within the game ranching, hunting, game capture and outdoor sports industries. Darting safaris should adhere at least to the following principles:

- Only animals that have to be immobilized for conservation, research or wildlife management reasons should be made available for a darting safari.
- No animal should be darted for the sole purpose of providing a safari for a client on purely commercial grounds.
- No individual animal should be darted repeatedly.
- An experienced veterinarian should handle the immobilization drugs and be present throughout the entire procedure and until the animal has recovered fully.
- All the relevant laws, acts, regulations and guidelines governing hunting, the handling of scheduled drugs, game capture and animal welfare should be adhered to.
- The darting safari should only be promoted and carried out by appropriately trained and experienced professionals, with due regard for the safety and well-being of the animal, the client and all staff involved. Suitable insurance should be taken out for the animal, the client and the staff for the duration of the darting safari.
- The darted animal should be kept in sight during the entire procedure to monitor the effects of anaesthesia and to render immediate assistance in potential life-threatening situations. In some cases, it is recommended that a radio transmitter be used in the dart and that a helicopter be on standby to find lost animals or render immediate follow-up assistance if required. Human trackers should also be on standby to serve the same function. In the case of elephants, the use of a helicopter on standby should be mandatory to ensure safety and success.
- The professionals involved should assess the client's ability to carry out the darting safari successfully before the actual safari commences, and appropriate training should be given in those aspects found lacking.
- In the case of a client darting safari, a hunting outfitter is required to market the safari and a professional hunter is required to guide the client.

A number of prominent wildlife organizations in South Africa have stated that they are opposed to the repeated darting of an animal for economic gain only. This guideline should be adhered to strictly. Nevertheless, when animals are darted responsibly for research, management or conservation purposes, the sustainable use options of our wildlife may be expanded to the ultimate benefit of wildlife conservation and the entire industry in southern Africa.

## REFERENCES

Bartels, P. (2009). Code of conduct for green hunting. In: Bothma J. du P. & Du Toit, J.G. (Eds) *Game Ranch Management*, Fourth Edition. J.L. van Schaik, Pretoria.

## APPENDIX 6:

# SWOT ANALYSIS TRADE IN RHINOCEROS HORN

– J. Anderson, 2012

### Strengths

- The South African government, the media and the nation as a whole are behind efforts to combat the illegal killing of rhinoceroses for their horns.
- Resources are available for most state-managed projects
- There is a vast amount of knowledge and relevant contacts available across the spectrum of law-enforcement professionals and conservation supporters in the country.
- There are experienced and dedicated personnel in the South African Police Services (SAPS).
- There is strong public interest and disgust in what is happening to our heritage.

### Weaknesses

- There is no common vision or strategy in the country.
- There is a lack of communication or co-ordination being implemented between South African National Parks (SANParks) and those non-government organizations (NGOs) with a proven track record. This means that there is no Network of Synergy being created by government and possibly much duplication of effort. Most of the networking is between NGOs with virtually none between government and NGOs.
- The upper levels of the problem have moved beyond the capacity of the game ranger into the realm of crime intelligence and military intelligence.
- There is a low rate of successful prosecutions and fines are no deterrent.
- Bail is awarded too easily.
- The numbers reported killed in Kruger National Park (KNP) are considered by many conservationists to be an under-estimate of the true figure.
- Not all SAPS units can be relied upon and some syndicates are tipped off from within the SAPS.
- Many senior and middle-level staff in protected areas have little or no experience in combating serious poaching.
- There is evidence of state employees using their position to facilitate poaching
- The capacity of most provincial conservation agencies has declined and continues to do so.
- Individual egos are hampering the exchange of information that can help solve the problem.
- There are over 400 NGOs and groups collecting money for rhinoceroses, probably fewer than 10 are really effective.
- Many organizations that are collecting money for rhinoceroses are doing so for their own benefit.
- Poaching units have a succession process for their careers, in that people who started as

- “shooters” are moving up the chain as they make more money.
- Very few police and border police in Mozambique can be trusted.
  - Some police stations and other in Mozambique have lent the rifles assigned to them for problem-animal to poaching syndicates.
  - Some police and senior government officials in Mozambique close alliance with known rhinoceros poachers.
  - Poachers entering the KNP from Mozambique now carry large sums of cash up to (R20 000.00) in order to immediately pay bribes if they are caught.
  - Mozambique legislation is outdated and poachers are released and the firearms returned when the fine is paid. Poachers are also given 14 days in which to find the money for a fine.
  - Statements made by rhinoceros experts, such as “The losses are sustainable” are not helpful and are open to question. They could be very wrong as we do not have accurate numbers.
  - Some South African NGOs spend funds raised from the public on wasteful projects. Car stickers, T-shirts and satellite-linked radio-transmitters. These will not stop rhinoceroses from being killed.
  - There is a question over the actual rhinoceros numbers in the country – both in SANParks and on private land. Many believe that there are fewer rhinoceroses than the numbers publicly stated.
  - The war cannot be won by only combating the problem defensively. At some point the country has to take the offensive if there is to be any hope of winning.

### Opportunities

- To establish clear leadership in solving the problem with a public face supported by a less visible core of people with the capacity to manage the campaign against a well-funded and experienced opposition.
- Employ new and innovative approaches through following the pathway of the trade from its source to the consumer and identifying the weak links in the chain.
- To make use of some of the top criminologists in SA and the world and other high-capacity expertise from various fields
- To set up an independent, co-ordinated database.
- To learn from the IDB operations on penetrating the trade. Establish a pseudo-syndicate to follow the pathways.
- To pursue the possibility of a tightly controlled legal trade in rhinoceros horn.
- To develop a highly trained team of private-sector security personnel to work with SANParks and to create a Rapid Reaction Force that can operate inside and outside the KNP.
- To engage the reputable NGOs in a positive manner rather than ignoring them.
- To convince those NGOs and provincial bodies embarking on fruitless expenditure to change to more productive strategies.
- To determine more accurate numbers of the animals on state and private land.
- To determine a “correction” factor for the number of animals reported killed in the KNP so as to get a more accurate picture of the problem.
- To test the current population estimate methodology used in the KNP against a total count. This can be done in the area between the Sabie and Crocodile rivers.
- To examine the possibility of establishing new viable populations of white rhinoceroses in areas of lower poaching risk.

- To establish an extradition protocol for known rhinoceros poachers from Mozambique and Zimbabwe. (Also for dealers from China, Vietnam and Thailand).
- The Minister of Foreign Affairs to call in the ambassadors of Vietnam, China and Thailand and make known the displeasure of the SA government and its people to what their nationals are doing to our wildlife.
- For the ANC leaders to step forward and unite the country in this campaign.
- Government to give support to selected NGO operations.

### Threats

- That the price of rhinoceros horn will increase and raise the demand and the level of threat.
- That the removal rate in the KNP is greater than present figures suggest and that the population is already decreasing.
- That the SA public will no longer believe the statements made by officials that we are “Winning the war” and “About to turn the corner” and donor funds will be harder to come by.
- That the capacity of the SAPS and provincial conservation agencies will decline further.
- That Mozambique continues to do little to curtail the poaching across the border in SA.
- That SA will lose a conservation icon in the rhinoceros
- That SA conservation efforts will be held in low esteem by the international community
- That SA citizens will view government and conservation agencies with low esteem
- That the failures in rhinoceros conservation will become another African ‘failure’.
- Wildlife crime is endorsed as a “Low Risk: High Gain” enterprise and therefore it is encouraged and will impact on other species.

### REFERENCES

Anderson, J. (2012). Unpublished report on dehorning of rhinos.

## APPENDIX 7

# CRIME SCENE / INCIDENT REPORT ENVIRONMENTAL CRIME ACTIVITIES - Col. J. Jooste

Information Details	Farm / Reserve / Park

Code:	
Farm:	
Reserve:	
Park:	
Title Deed Register No (Private Farm):	
Province:	
Size (ha):	
Owner/Management Authority:	
Telephone:	
Cell:	
E-mail:	
District / Section:	
Manger/Section Ranger:	
Telephone:	
Cell:	
E-mail:	
Remarks:	
<b>Information Detail:</b>	<b>Crime Scene Attendance:</b>





<b>Investigator Ref no (e.g.: sandras010910):</b>									
Linked to:									
SAPS CAS		EMI Ref		Project		Other (Describe)			
SAPS CAS:									
Date of Incident / Offense:									
Type of incident:									
Illegal activity		Natural causes				Management related			
Brief description of incident/offence:									
Method of discovery:									
Routine aerial patrol		Ground patrol							
Public		Research							
Informant		Other (Describe)							
Legislation contravened:									
GPS Reading: (Incident / Carcass)									
Latitude (S):					Longitude (E):				
Location / Address (Incident):									
Moon Phase:									
Full		Half		Quarter		New			
Spoor lifted:									
Yes		No							
Species involved (If Yes please complete Information Details – Species)									
Yes		No							
Persons (Arrested / Suspects) involved (If Yes please complete Information Details – Persons)									
Yes		No							
Firearms involved (If Yes please complete Information Details – Firearms)									
Yes		No							

Chemical Immobilization (If Yes please complete Information Details - Chemical Immobilization)			
Yes		No	
Vehicle involved (If Yes please complete Information Details - Vehicle)			
Yes		No	
Aircraft involved (If Yes please complete Information Details - Aircraft)			
Yes		No	
Vessel involved (If Yes please complete Information Details - Vessel)			
Yes		No	
Photos taken (If Yes please attached photos to Information Details - Photo Album)			
Yes		No	
Snare / Other involved			
Yes		No	Number of snares:
Exhibits:			
Yes		No	Description of exhibits:
Remarks - Modus Operandi			
Information Details		Species (One record per animal)	

<b>Investigator Ref no</b> (e.g.: sandras010910):												
Linked to:												
SAPS CAS		EMI Ref		Project		Other (Describe)						
SAPS CAS:												
Species:												
Fate of species												
Killed		Wounded										
Suspected date of species killed/Wounded:												
Method Illegally hunted:												
Shot		Chemically immobilised										
Snared		Poisoned										
Other (Describe)												
Age of carcass												
Hours		Days		Months								
Gender												
Male		Female										
Age:												
Juvenile		Sub-Adult		Adult								
Value species (Rand):												
Biological samples (DNA) taken:												
Hair		Horn		Soil								
Blood		Nail		Tooth								
Remarks:												
<b>Information Details</b>						<b>Person</b> (One record per person)						





<b>Investigator Ref no</b> (e.g.: <i>sandras010910</i> ):											
Linked to:											
SAPS CAS			EMI Ref			Project			Other (Describe)		
SAPS CAS:											
Dart-gun recovered:											
Yes			No								
Date recovered:											
Where recovered:											
By whom recovered:											
Dart-gun type:											
Calibre:											
Make:											
Serial number:											
Licence											
Yes			No								
Ownership details: (Complete Information details: Person)											
Yes			No								
Evidence found at scene:											
Number of complete darts found											
Description of dart found											
Chemical evidence found											
Description of chemical found											
Remarks - Modus Operandi											
<b>Information collected</b>						<b>Vehicle</b> (One record per vehicle)					





Investigator Ref no (e.g.: sandras010910):									
Linked to:									
SAPS CAS		EMI Ref		Project		Other (Describe)			
SAPS CAS:									
Aircraft recovered:									
Yes		No							
Date recovered:									
Where recovered:									
By whom recovered:									
Aircraft Registration number:									
Aircraft Type:									
Mass:									
Aircraft Age:									
Main colour:									
Second colour:									
Country of registration:									
Radio call sign:									
Nearest Airport (refuel):									
Details of pilot: (If Yes please complete Information Details - Persons)									
Yes		No							
Details of passengers (If Yes please complete Information Details - Persons)									
Yes		No							
Remarks - Modus Operandi									
Information collected					Vessel (One record per vessel)				

Investigator Ref no (e.g.: sandras010910):									
Linked to:									
SAPS CAS		EMI Ref		Project		Other (Describe)			
SAPS CAS:									
Vessel recovered:									
Yes		No							
Date recovered:									
Where recovered:									
By whom recovered:									
Vessel Registration number:									
Vessel Type:									
Mass:									
Vessel Age:									
Classification:									
Main colour:									
Second colour:									
Country of registration:									
Radio call sign:									
Details of pilot: (If Yes please complete Information Details - Persons)									
Yes		No							
Details of passengers (If Yes please complete Information Details - Persons)									
Yes		No							
Remarks - Modus Operandi									
Information Details					Rhinoceros Specific:				

Investigator Ref no (e.g.: sandras010910):

Linked to:

SAPS CAS	EMI Ref	Project	Other (Describe)
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SAPS CAS:

No of Rhino horn recovered:

No of Horn removed:

Horn base circumference (cm):	Front	Rear
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Weight (kg)

Identification - genetic profile:

Identification - Photograph:


Identification - microchip:

Identification - ear tag:

Identification - ear number:


Mark wounds on Picture of White & Black Rhino:

Seen?




Body Condition Score: 1 2 3 4 5


Seen?



Seen?



Seen?

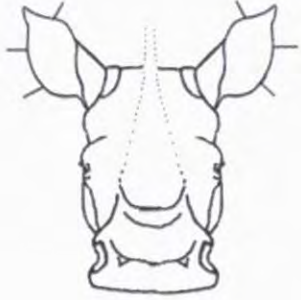


**WHITE RHINO IDENTIFICATION FORM**


Reserve: ..... Date: .....

Observer: .....

Location: ..... Time: .....


Seen?    Seen?

Seen?




Body Condition Score: 1 2 3 4 5


Seen?



Seen?



Seen?

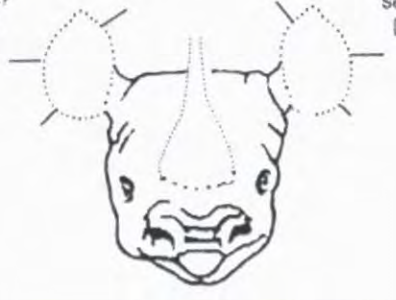


**BLACK RHINO IDENTIFICATION FORM**

Reserve: ..... Date: .....

Observer: .....

Location: ..... Time: .....

Seen?    Seen?

Time species on property:
Sketch of crime scene:
Remarks - Modus Operandi
Information Details - Photo Album

Investigator Ref no ( <i>e.g.: sandras010910</i> ):				
Linked to:				
SAPS CAS		EMI Ref		Project
				Other (Describe)
SAPS CAS:				
Photos taken:				
Yes		No		
Please attach photos to Information Details Photo Album:				



## APPENDIX 8:

## ACRONYMS

AfrRSG	African Rhino Specialist Group
AROA	African Rhino Owners Association
CBNRM	Community Based Natural Resource Management
CDB	Central Data Base
CITES	Convention on International Trade in Endangered Species
COP	Conference of Parties
CONACS	National Council for South American Camelids
CTGSTSA	Commercial Taxidermists and Game Skin Tanners of South Africa
DEA	Department of Environmental Affairs
DPCI	Directorate for Priority Crime Investigations (Hawks)
EIA	Environmental Investigation Agency
EMI	Environmental management inspector
EWT	Endangered Wildlife Trust
EKZNW	Ezemvelo KwaZulu-Natal Wildlife
ESPU	Endangered Species Protection Unit
GC-MS	Gas chromatography mass-spectrometry
GKPNR's	Greater Kruger Private Nature Reserve
IUCN	International Union for the Conservation of Nature
KRST	Khama Rhinoceros Sanctuary Trust
KWS	Kenya Wildlife Service
KZN	KwaZulu-Natal
MinMec	Ministerial advisors and the minister with his 9 MEC's (Members Exec Com)
MRA	Medicine Regulatory Affairs
NPA	National Prosecuting Authority
NEMBA	National Environmental Management: Biodiversity Act 10 of 2004
NGO	Non-government organisation
OIE	Office International des Epizooties
PHASA	Professional Hunters Association of South Africa
REST	Remote explosive scent tracing
RhODIS™	Rhinoceros database that is based on the CODIS system of human
SAB	South African Breweries
SADC	South African Development Commission
SAHGCA	South African Hunters and Game Conservation Association
SANParks	South African National Parks
SAPS	South African Police Services
TASA	Taxidermy Association of Southern Africa
TCM	Traditional Chinese medicines
TOPS	Threatened or Protected Species
US\$	US Dollar
VGL	Veterinary Genetics Laboratory – Onderstepoort (UP)
WESA	Wildlife and Environmental Society of South Africa
WWF	World Wide Fund for Nature
WRSA	Wildlife Ranching South Africa
WTA	Wildlife Translocation Association
ZAR	South African Rand
ZAWA	Zambian Wildlife Authority