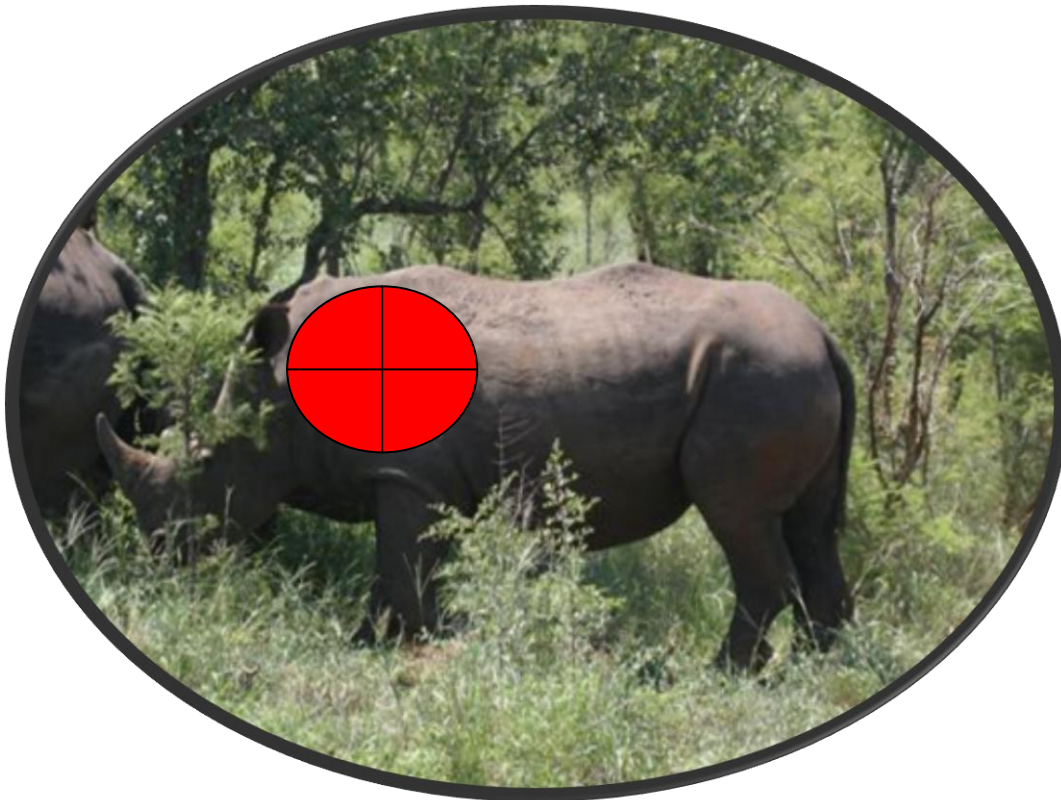


**THE SURVIVAL OF THE RHINO  
IN SOUTH AFRICA, FOR SOUTH AFRICA –  
A CRITICAL APPROACH**



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## Acknowledgements

1. Many thanks to three special friends who work relentlessly towards saving the rhino in natural environments. Much of their work is done at great personal costs, time and a desire to make a difference: Terry Bengis, Allison Thompson and Dee Bratuchin.
2. Thank you to my family, who provided me with the personal security to 'do my own thing'. I do appreciate their sacrifices in time and personal attention. Special thanks in this regard to my sister, Elize Schoeman, with her dedicated support for achieving goals, and my youngest son, who often proclaimed: "Mom, I am proud of you! You can do it!"
3. To my late father, whose life motto was: "If you can dream, but not make dreams your master, if you think, but not make thoughts your aim..."
4. To my grandson, G.J. Scholtz, who was born during the course of this research: For you and your generation... to experience African wildlife living free in the African bush... for generations to come!
5. To Linton Davies, for his language editing and professional formatting of this report.
6. Thanks to my Heavenly Father for giving me an inquiring mind and the ability to do research, and for showing the way forward in a unique and personal way.

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**THE SURVIVAL OF THE RHINO IN SOUTH AFRICA, FOR SOUTH AFRICA –  
A CRITICAL APPROACH**

“It is increasingly apparent that key ecological thresholds in South Africa are being breached by its prevailing approach to growth and development (creating and growing markets) and this is resulting in dysfunctional economic cost.”

Professor Mark Swilling, Director: Sustainability Institute, University Stellenbosch

March 2011



## Abbreviations

ARA.....	Animal Rights Africa
CITES	Convention on International Trade in Endangered Species
DEA	Department of Environmental Affairs
DEAT	Department of Environmental Affairs and Tourism
EIA	Environmental Investigation Agency
ESSPSA	Environmental Sector Skills Plan for SA
GDP	Gross Domestic Product
IFAW	International Fund for Animal Welfare
IUCN	International Union of Conservation of Nature
KNP	Kruger National Park
NAMC	National Agricultural Marketing Council
NDT	National Department of Tourism
NTSS	National Tourism Sectional Strategy
NWU	North-West University
PHASA	Professional Hunters' Association of South Africa
PPC	Public Participation Committee
PROA	Private Rhino Owners Association
SADC RMG	SADC Rhino Management Group
SANBI	South African National Biodiversity Institute
SAGCA	South African Game and Conservation Association
SPOTS	Strategic Protection of Threatened Species
TCM	Traditional Chinese Medicine
TRAFFIC	Wildlife Trade Monitoring Network
TOPS	Threatened or Protected Species
UNEP	United Nations Environmental Program
WRSA	Wildlife Ranching South Africa
WWF	World Wildlife Fund

# Chapter 1 The aim, rationale and methodology of the study

## 1.1 The aim of the study

A multi-disciplinary and systems approach was used for the study. The aim was to determine the following:

- Will opening the trade of rhino products prevent or ultimately stop the current poaching and contribute to the future existence of the species in the wild?
- What is the purpose of the trade? Is it to save the rhino, or is it to commercially farm the species for financial gain?
- Who are the stakeholders and what are different points of view do they hold in this regard?
- To what extent do trade agreements influence the poaching, how is trade regulated and what powers of authority are evident? Does South Africa meet the requirements as set by international agreements and how are the internal trade and specifically hunting regulated?
- What is the economic viability of opening the trade and how will it be regulated? What target markets have been investigated and how will distribution take place? What will the effect be on the illegal trade in other endangered species? Ultimately, how will it curb the poaching? Are flooding the market and the supply/demand theory relevant at all, or will they lead to an explosion in demand and therefore an escalation in current poaching activities, especially in the Kruger National Park (KNP), which has become known as the 'killing grounds', and where 65% of the poaching takes place?
- The supply/demand theory is specifically relevant to expand current markets and not to reduce demand of a product. Is it relevant to the question of reducing or halting the poaching?
- What risks are involved, specifically to the South African government on behalf of South Africans and the proposed trader/farmer?
- How sustainable are different economic sectors in which the rhino plays a role and which offer the most significant strategies towards growth in the South African economy, and at the same time protect natural ecosystems?
- What culture guides ethical and responsible behaviour in each industry?
- How relevant are 'flow over' activities from these sectors for the purpose of poverty alleviation, employment possibilities and ecosystem protection as sustainable practices?
- What possible solutions can be suggested?
- What should the way forward be?

## 1.2 The rationale of the study

The purpose of this study was to establish why rhino poaching in South Africa remains an unsolved problem. Who are the stakeholders in this debate, and should South Africa consider international trade possibilities? What are the key determinants and what viable options does South Africa have to bring an end to the poaching? Different interrelated systems were unravelled and the possibilities

of each were investigated. The focus needs to be on different options available to stop or substantially reduce the poaching for the rhino to survive on the African continent.

The problem is not uniquely South African, but involves Africa as a whole, specifically the SADC region. Because South Africa is a signatory to CITES, whose purpose is to monitor international trade in endangered species, the problem is a global concern.

The financial concepts of conversion of capital and sustainable practices were investigated and clear direction was found.

A multidisciplinary approach was followed, which enabled the researcher to include different disciplines in the research. This was done as the problem is too complex to be solved from the perspective a single discipline. The research methodology followed was a systems approach, through which the researcher investigated a number of related systems, which allowed each to be unravelled as a sub-construct with a set of parts, and eventually the complex whole could be unravelled.

As South Africa is recovering from the global recession and is faced with problems such as unemployment, degradation of ecosystems, water scarcity and unequal distribution of wealth, sustainable practices are crucial and economic growth can no longer be seen in isolation.

The research team therefore had to investigate the possibilities of growth within each related economic sector, to establish which sector offers the best opportunities for employment, economic growth and poverty alleviation, and at the same time protect natural ecosystems.

During the course of this study, three prominent views became evident, and will be referred to as the 'pro-trade stand' (the stakeholders advocating the opening of the trade) and the 'no-trade stand' (the stakeholders strongly opposing any trade in rhino products). A 'neutral' stand was also identified, which included a variety of role players involved in the ultimate survival of the species (conservation agencies such as the SADC Rhino Management Group and the WWF). The latter role players are of the opinion that if stockpiled horn could be used to address and alleviate the poaching problem, or dehorning can protect the rhino from poaching, it should be considered.

More South African citizens are being arrested, and professionals in the field seem to contribute to the disaster. Wildlife veterinarians, farmers and guards in the KNP have been found guilty, and there is more confusion about which NGOs to support and which not.

A neutral stand was taken in this study – the advantages and disadvantages were carefully investigated and appropriate and unbiased conclusions reached. A data analysis was done, and each fact can be supported by relevant evidence from reliable sources.

It needs to be remembered that South Africa has only one chance: if the rhino is lost, all Africa's endangered species will be lost for future generations. The king of the jungle, the lion, is already being 'bred for the bullet', and Africa's elephant population is under extreme threat. Can the country afford to let this happen to more endangered species? Or is it time to unite, and focus on SAVING THE RHINO?

### **1.3 Methodology**

Different stakeholders were identified and specific relevance was assigned to each point of view.

The purpose of CITES in the debate was analysed, as some stakeholders are of the opinion that international bans are responsible for the poaching. The regulation of the internal trade was investigated with specific relevance to TOPS regulations and how they are applied in practice.

A detailed economic analysis was done. The focus was on global trends and the Asian and South African economies were investigated. A product analysis was conducted, and the demand and supply theory was applied to the rhino situation. A risk analysis was undertaken and the risks identified. After this detailed analysis, conclusions could be reached about opening the trade as a solution to poaching.

The agricultural (ranching) and hunting industries were investigated and the contribution of these sectors to the economy was established. Evidence of growth, employment opportunities and poverty alleviation in these industries was found to be extremely limited.

The tourism industry and its growth were analysed.. Emphasis was placed on 'flow-over' industries and the importance of rural development. The effect of consumptive tourism is included in the analysis and its contribution was established. This enabled the research team to make a comparative analysis of different industries. The purpose was to establish the particular industry in which the rhino contributes to sustainable economic growth and benefit to the people of South Africa, specifically in rural environments. From this detailed analysis, clear conclusions could be reached.

Possible solutions are identified, and recommendations are made about what to do to address the problem.

## Chapter 2 Introduction and problem statement

### 2.1 Introduction

The opening statement to this document was made by a world-renowned South African leader in the field of sustainable development within developing economies. Developing countries need unique solutions to deal with environmental, social and economic challenges faced in the new millennium. This refers not only to mineral, but also to ecological resources (Swilling, 2011).

A different approach to resource management and specifically to ecosystem protection is thus desperately needed to accommodate economic growth, protect employment opportunities and protect natural ecosystems.

During the past two decades, the natural environment in South Africa has degraded at an alarming rate, and as early as 1999, the DEAT's report, *The Economic Environment*, indicated that responsible environmental management makes economic sense, as rehabilitation is much more costly than prevention. (De Wit & Blignaut, 2006) Yet the government annually allocates fewer resources (financial, human and natural) to conservation and proper ecosystem management.

If any specific species needs to be mentioned in this regard, it is the rhino – South Africa is the custodian of more than 90% of the population of these unique and majestic animals.

The tourism industry contributes 8.4% to South Africa's GDP (STATSSA), and it is crucial for economic development, employment opportunities and poverty alleviation. Strategies are well developed and defined to indicate growth and success in the sector. Together with this, small and medium enterprises contribute more than 68% towards actual employment opportunities, and a great fear exists that failing SMMEs could reduce these figures. This will contribute to rising unemployment and deepening poverty levels.

It is specifically in this sector that private rhino owners and wildlife and tourism activities attract tourists to South Africa.

Together with Table Mountain, which was chosen by international tourists as one of the seven natural wonders of the world in 2011, the main tourist attraction for local and foreign tourists to the country is the famous BIG 5, of which the rhino is one. This means that protection of the rhino and the other BIG 5 animals in their natural habitats is crucial to the future of South Africa.

It is specifically the desperate aim by South Africa citizens to protect the country's wildlife that has resulted in a heated debate as to what needs to be done to protect the rhino from certain extinction.

Two opposing views have emerged from this debate: the pro-trade/pro-hunting faction, which advocates that demand will decrease if legal trade is allowed and hunting permits are issued (namely the 'if they can pay they can stay' view), and the opposing view of the ardent rhino lover, who is of opinion that the species need protection in the African wild, as the animals are part of the country's natural heritage and should be able to run free in the African bush. The main purpose of the rhino should be to attract nature lovers to the country's main tourist attractions and to be the ultimate export product. In fact, the group of people who hold this view are the ones who earn a living,

provide desperately needed jobs and create costly infrastructure to attract tourists to their establishments.

Due to public pressure, international lobbying and numerous petitions, the South Africa Government has taken a number of steps to safeguard the rhino populations in SANParks and other government reserves. Regardless of the efforts, this is not working, as the killings continue and rhinos are being poached at an alarming rate.

Therefore, a multidisciplinary analysis of the situation is long overdue.

The purpose of the analysis in this study was to include all relevant information from available resources: desktop reviews, the social and printed media, academic libraries and personal and e-mail communications with a number of willing participants and individuals working on the ground. Official statements, reports and statistical information from government agencies and STATSSA have been included in the report. A neutral stand was taken, a proper economic analysis was done and a sustainable approach suggested. Problem areas were identified and urgent solutions suggested. If this results in a purposeful and focused way forward to resolve the rhino crisis, it will have been well worth the time and effort taken to produce the report.

## **2.2 Problem statement**

The problem investigated can be stated as follows:

Will opening the trade or entering into restricted trade agreements substantially reduce the current level of rhino poaching in South Africa?

How will this affect South Africa as a developing country?

What contribution does the rhino make to economic development, specifically to the socio-economic issues in South Africa?

## Chapter 3 Clarifying concepts in the debate

This point of the discussion has to be included to clarify certain concepts as used in the everyday language of South Africans. These concepts lead to confusion and further heat the pro-trade/no trade debate. It is therefore crucial that each individual, before reading this document, understands what is meant by the specific terms and what the responsibility towards truthful and honest information in this regard is.

### 3.1 Economic growth, conservation and sustainable development

Although economic growth can be seen as an increase in the capacity of the economy to produce goods and services, global trends tend more towards responsible and sustainable growth targets. Economic growth cannot be seen in isolation any more, purely because the earth's resources cannot maintain human consumption.

This is specifically relevant in Asian economies. The National People's Congress of China voted through the 12th Five Year Plan for National Economic and Social Development, which, promised China, will shift measures of economic success away from GDP-focused criteria. China is important, as it is the largest Asian economy ([www.greengrowth.com](http://www.greengrowth.com) , 03/2012). This is a clear indication of the largest global economy moving towards decoupling economic growth from natural and social development. The tendency is not only relevant to the socio-economic sector, but the Chinese government specifically referred to the environmental sector.

As will be evident throughout this document, there are two opposing views which are the main dividing force in the rhino debate. The first view is grounded in the economic exploitation of natural resources in terms of capital (Scott, 2011), in other words, the 'if they can pay, they can stay' concept. This refers to the idea of natural resources as mere capital investment. This is strongly linked to the pro-trade stand. This view represents the 'weak' school of sustainable development, where capital as such is the main driving force. Els (2011) often refers to sustainable use of resources in terms of rhino 'harvesting'.

The second view, conservation, on the other hand, ultimately focuses on the protection of natural resources, natural ecosystems and natural environments, in which the human being serves as the coordinator and manager. This is crucial as all humans rely on natural resources for their continued existence. The result is to put the planet or nature first, as all human beings are dependant on healthy environments. Capital conversion is linked to the loss of natural resources by future generations. The per capita welfare should therefore not decrease over time and future generations should have the same access to it. In short, it means that future generations should enjoy the rhino in the wild, as do current generations. Focus needs to be placed on co-existence with nature, the concept being that humans are part of the planet as a universal construct for life on earth (Scott, 2011; Robinson, 2009).

This is specifically relevant in South Africa, where the economy is still heavily reliant on non-renewable energy sources. The tourism industry, one of the growing sectors in the economy, relies on natural resources, not only in the industry itself, but specifically because of the high unemployment rate, related social problems and the effect on poor communities who rely on natural resources and ecosystem protection for basic survival and food security.

Sustainable development has become a buzzword, a word that is being exploited as a cover-up for natural resource exploitation or environmental over-exploitation. This is specifically relevant to the allocation of water licences in extraction industries, which is currently threatening the agricultural activities of Limpopo province. This province is Africa suffering from political instability, financial mismanagement and tender corruption. This is also the province with the highest white rhino population in private ownership (SADC RMG, 2010) and the largest percentage of exempted game farms (hunting) (Van der Merwe & Saayman, 2003) which of course results in the highest poaching figures.

According to Booth (2010), Van der Merwe & Saayman (2003) and Chardonnet (2010), concerns in this regard include:

- The benefits that local communities could gain from conservation if corruption could be eliminated and proper implementation ensured.
- The small contribution hunters make to employment opportunities and to economic empowerment of local communities. In South Africa wildlife belongs to the owners, but the system is abused and has resulted in growing rhino populations for financial gain, with little concern for ecosystem protection or the re-establishment of wildlife populations.
- Misconduct among outfitters, safari operators and private landowners requires attention, as it raises concerns about hunting as a tool for conservation.
- Hunting should be regulated to assist in community development, conservation or at least contribute towards anti-poaching initiatives.

Possibilities for economic and environmental benefits from hunting are evident, but only if unsustainable quotas, poaching, corruption and misconduct can be eliminated and well-managed programmes are followed. A number of alternative strategies are available, but not these have not been implemented.

Swilling (2011) explains in terms of economic growth specifically in Africa that the continent cannot escape the resource depletion that faces the rest of the world. *“If Africa invests in a growth path that is resource intensive (mineral or natural), it might end up undermining the key conditions for growth that it is dependent on in order to eradicate poverty and rise up on the human development index.”* He adds to this argument that Africa should strive to achieve its developmental goals by finding a pathway that is not resource intensive. De Wit (2006) agrees with this view and both these authors strongly support, as does the Republic of China, the decoupling of natural resources from economic growth.

In light of the fact that South Africa only has 5.5% of its land area allocated to conservation and 82% to agriculture, with game farming being allocated a massive 16.8% (NAMC, 2006), which a number of authors agree does not significantly contribute to economic empowerment or the GDP (Deere, 2011; Saayman, 2002; Bulte & Damania, 2005; IUCN, 2011), the rhino, as the ultimate survivor (50 million years), majestic protector and keeper of large ecosystems, must be protected in the wild to attract global tourists to South Africa.

Africa as a continent must accept realities and the value of natural resources for growing national economies. Protecting resources for future generations has become crucial. The time has come to



take a definite stand, to make firm decisions and to protect natural resources for generations to come.

### **3.2 Economist**

An economist is an individual who focuses on the study of the distribution of possible resources for the production of goods and services. As is evident from the above discussion, this cannot be done in isolation any more ([www.dictionary.com](http://www.dictionary.com). 03/2012). The economist places the emphasis on PRODUCTION, where strategies, processes and action are required to enlarge markets and to penetrate new target markets. The key focus is thus the increase in profits.

### **3.3 Environmentalist**

An environmentalist can be defined as someone who is an expert on environmental problems – any person who works to protect the air, water, animals, plants and other natural resources from pollutants or threats of any kind ([www.dictionary.com](http://www.dictionary.com) 03/2012).

As is evident from previous paragraphs, environmentalists are no longer extreme ‘greenies’, ‘tree-huggers’, ‘fanatic animal protectors’, or ‘conservationists’, but are fast becoming mainstream scientists who have to solve complicated environmental problems due to over-consumption or simply the greed of those who lag behind. The environmentalist is no longer only concerned about the environment, but as sustainable practices have been gaining momentum, has had to focus increasingly on the planet, the people and prosperity, which in everyday terms means the environment, the people living on the planet and economic growth.

Therefore, to imply the environmentalist’s ignorance of market forces (‘t Sas-Rolfes, 2012) is totally irrelevant and ungrounded.

### **3.4 Conservation economist or environmental economist**

This definition was more difficult to find, as it is evident that this is a combination of 3.2 and 3.3. In fact, only few institutions in South Africa offer focused training programmes in this regard.

Different training institutions offer different qualifications, which, if combined, can result in individuals giving themselves the title of conservation economist. Unfortunately, many bogus qualifications also exist, and a thorough investigation and tracing of the specific individual’s academic records are required to determine relevance. Overseas qualifications are often not accepted in South Africa, and they need to be verified by SAQA (South African Qualifications Authority).

The Conservation Strategy Fund, funded by the Gordon and Betty Moore Trust, which specifically focuses on training in this regard, explains the responsibilities of these professionals as follows:

- A conservation economist should do more than monetary valuation.
- Deploying conservation economics involves more than payment for ecosystem services (refer to introduction: the no-pay, no-stay principle).
- More needs to be done to bring the difficult measured values of public goods (like biodiversity) into decision making.

It is therefore more than merely a case of seeing how much money one can make, but is a clear analysis of all natural resources and ecosystem protection, contribution to communities and rehabilitation costs affected by the process.

### **3.5 Researcher**

According to [www.yourdictionary.com](http://www.yourdictionary.com), a researcher makes use of careful, systematic, patient study and investigation in a specific field to discover or establish facts or principles.

A discussion of these concepts was needed to indicate different viewpoints and the perspectives from which stakeholders consider possible solutions. It also indicates what the role and responsibility of each role player in the debate is.

## Chapter 4 Stakeholders in the debate

### 4.1 Introduction

As explained above in previous chapters, there are two definite opposing forces evident in this debate. The one force is mainly operating in the tourism industry and the general public of South Africa. The other side is represented by a focus on a way to make money, whether by farming (ranching), by killing (hunting) or by harvesting (selling of harvested horn, which causes the animal severe stress). Proponents of this stand often view the tourism industry as “insignificant” (Eustace, 2012) or “inferior and not objective as extreme conservationists with no knowledge or understanding of economic principles” (t Sas-Rolfes, 2012), whereas in fact they operate as successful entrepreneurs in one of South Africa’s growing industries. The assumption is clearly made that no breeding or natural growth of populations takes place within tourist reserves. Furthermore, extreme statements like “hunting saved the species from extinction” is often blatantly advocated (PHASA, 2012), but is contradicted by various authors. Hunting should only form part of a carefully regulated and well-managed conservation programme (refer to Knight, M., SADC Rhino Management Group, 2011, and many other conservation experts such as Emsley, Spenceley and Brooks).

Evidence was found throughout the research process that the pro-trade stand tends to focus on financial gain, which can lead to a similar situation as in the canned lion industry, where numbers of animals are growing, but live animals are merely bred to be killed, and little conservation is done (returning the animal to the wild and to natural ecosystems). Very little financial support to local communities is evident, as the farmers or hunters are the sole beneficiaries of their practices and the only benefit the authorities receive is through normal taxation. Other tourism activities are clearly lacking and the main focus is on hunting, usually at exorbitant fees (Van der Merwe & Saayman, 2003).

Furthermore, there is clear evidence that these stakeholders (the key advocates of the pro-trade stand) are extremely well financed and well resourced in their attempts to convince others (specifically the South African public) of their point of view and have therefore embarked on a massive PR campaign to aid them in their efforts.

The opinion of the actual owners of 75% of the rhino population in South Africa (the taxpaying citizens), is rarely considered, as they rely on the custodians of wildlife heritages (the DEA, provincial and local government reserves and agencies with specific reference to SANParks and strategic management officials in these unique natural settings) for decision making. The South African citizen expects that every person involved in protecting natural resources will do so according to specific rules, regulations and guidelines as set out by international and local laws, agreements and guidelines.

The purpose of this chapter is to clarify different stands and to emphasise the responsibilities of custodians of the rhino population.

## **4.2 The citizens of South Africa and the South African Government as custodians of the rhino population**

Although these are the rightful owners of more than 75% of the rhino population of South Africa, this is the group of people that is the most deprived of a say in the matter as to how to deal with the problem. Instead of working WITH the public and placing priority on eliminating problems and meeting CITES requirements, the public is denied information, media gags are placed on SANParks, public and social media awareness programmes are hampered, corruption is not addressed and trustworthy officials remain absent.

The issuance of hunting permits by provincial authorities serves as an example. According to the Centre of Environmental Rights, TOPS regulations and the National Environmental Management Act, No. 107 of 1998 (the NEMA Act), with specific reference to the National Environmental Management: Biodiversity Act, No. 104 of 2004 (the NEMBA Act), the MEC of a province is responsible for the issuance of hunting permits. This individual can delegate the function to the HOD of Environmental Affairs of the specific province. The only province that has delegated this authority is the MEC of Economic Development, Tourism and Environmental Affairs of the Free State (Centre of Environmental Rights, 2012).

The question arises: Who issues hunting permits in other provinces and to whom is the authority delegated? This leads to the question: HOW easy is it to get SOMEONE to issue a permit? How is it regulated, and who is ultimately responsible, or can any employee merely issue a permit? In this regard, the Minister indicated to Mr Gareth Morgan (2010) that she relies on provincial authorities to deal with poaching issues. This is relevant as the evidence is clear that the more exempted hunting reserves, the higher the poaching (Limpopo). ARA (2010) relates increased poaching figures to increased hunting statistics.

Evidence indicates that in conservancies where well-established conservation strategies are in place and there is strict control over the issuance of hunting permits, POACHING IS REDUCED. (Ezemvelo KZN Wildlife: Presentation to PPC: January, 2012). Yet, to date, poaching has escalated even in the traditional safe haven of KwaZulu-Natal.

Another example of this is the fact that the hunting industry (Els, 2011.) had early access to the exact value of the stockpiled horn, (March 2012, RSG Omgewingsake), yet hunters represent a small percentage of the South African citizens, but in the media statement of 29 March 2012, the ministry clearly withheld the information from the South African public. The DEA decided to include in this statement the careful process and strict regulations to be adhered to when applying for a hunting permit, yet fails to mention that this is NOT HOW IT IS HAPPENING! On 17 April 2012 more control and tighter regulation of the issuance of hunting permits was announced. On the local media, (RSG, Spektrum, 17 April 2012), Els stated clearly that DEA officials are seldom present during a hunt YET NOTHING IS BEING DONE to regulate that, and anyone at conservation agencies can issue permits.

Massive income is generated from rhino hunting (PHASA, 2010). The more animals being bred, (breeders), the more are hunted at extremely high prices. Add to this the ease of which a hunting permit can be obtained, accentuated by the irresponsible process in the issuance of the permits, and alarm bells start ringing.

The question arises: Are rhinos already in the same situation as the 'canned lions'? Are the cages merely larger, because the animal is much bigger? (re: put-and-take hunts).

Many skills, resources and the right values exist within the South African public. A solid example of this is that there are many voluntary honorary field rangers who offer their time and expertise to serve South Africa's natural heritage. It is only this organisation that has visible anti-poaching awareness campaigns within the borders of the KNP. Other anti-poaching educational projects are often undertaken by individuals or dedicated educators as part of their normal duties or merely as something they need to do. Awareness campaigns are left to under-resourced NGOs and NPOs and the public, who are prepared to donate vast amounts of money, offer many man-hours to run awareness stalls at tourist exhibitions, protest loudly outside court rooms, plant crosses for slain rhino, finance book campaigns and distribute pamphlets, all at their own expense. Yet this is one of the CITES requirements not being met by the MA of South Africa.

McNeely et al. (1990) refer to the intangible value of wildlife on the African continent, and state "Nature is considered as much alive as humankind. It speaks to humans and exerts an influence." This refers closely to the idea of "we are one with nature" and clearly links with the concept of ecosystem management, as will be discussed in this document. Spenceley and Barnes (2009) indicated the explicit wish of local communities to contribute to conservation and tourism activities in rural areas and found that more than 80% would like to engage in related activities. The commitment of local communities to PROTECTING RHINO in natural environments is evident from the recent arrests of poachers. Not only did local community members alert investigation authorities and reported suspects' presence, but made citizen's arrests and marched the poachers to the waiting helicopter. Without their commitment the poachers would not have been arrested (RSG, Monitor, 17 April 2012).

Support from other African governments to embrace these skills, values and expertise is visible throughout Africa, as is the use thereof to protect natural resources as part of natural heritages (Namibia serves as an excellent example). The reason for this is evident: to protect the resources needed to build the growing African tourism industry, which in turn creates opportunities for local communities.

There are many problems regarding ecosystem management in the South African environment, as a mere 5.5% to 6% of land is allocated to conservation. It is specifically in this regard that private reserves contribute to the growing tourism industry, with their main aim of attracting tourists to Africa and at the same time protecting large ecosystems.

Pilot projects on skills development (with specific focus on values and management skills) were undertaken in the Cape Floristic Region, with excellent results. Yet the South African National Biodiversity Institute (SANBI) has to rely on external financing to fund the project (SANBI Skills for Biodiversity (2011)). These skills and values can very well be utilised in other areas of natural resource management.

**Natural environments contribute largely to economic growth in South Africa. Should skills, abilities and values of citizens not be embraced and disadvantaged communities empowered to become involved in natural resource protection?**

### **4.3 The pro-trade stand**

As was mentioned above, the pro-trade stand is represented by two main stakeholders. Each will be briefly discussed. These stakeholders are the only ones that can gain financially by opening the trade or down-listing the white rhino to CITES Appendix III. It can therefore be presumed that this is their main aim. There is clear evidence that syndication and stockpiling can be linked to individuals within these organisations (refer to arrests made: professional hunters, farmers, safari-operators, etc.)

Why otherwise the focus on opening the trade, as strongly advocated by J. Hume (who proudly proclaims to have the biggest privately owned herd of rhino) in global and national media campaigns?

Evidence of the notion to financially exploit the rhino is supported by a study by North-West University, conducted as early as 2003 (Van der Merwe & Saayman, 2003). This study indicated a price increase for the period 1999 to 2000 of 69.68% and 39.67% respectively for black and white rhino.

Van der Merwe states: "As the number of scarce animals increases, it will eventually lead to a lower market price, but will still have high trophy value." This is exactly what is currently happening with lower market prices for live animals.

This of course explains why PHASA so strongly opposes the moratorium on hunting. This notion is also supported by Eustace (2012).

A more detailed analysis is provided in Chapter 7 of this document.

#### **4.3.1 The hunting industry**

Although hunting is viewed as an age-old activity, the traditional hunting methods are long gone. These focused on the concept of a 'fair hunt', where the animal and the human had an equal chance. With modern technologies and weaponry, the hunter has a definite advantage, and hunting to provide food is no longer relevant.

Chardonnet et al. (2006) and McNeely et al. (1990) stress the purpose of commercial hunting as surplus off-take to commercially exploit certain species. This indicates that hunting should only focus on excess animals, and should only form part of a well-developed conservation strategy. In the current mismanagement of the hunting industry, this is clearly not the case.

Hunting should be seen as a strong incentive for maintaining natural habitats, specifically of large mammals like the rhino, to enable biodiversity and ecosystem management. The contribution of the rhino in this respect is highlighted by the above researchers as having enormous ecological value, namely the capacity to absorb pollution, maintain soil fertility, purify water and provide to large ecosystems.

These authors state: "As human needs and biodiversity are interwoven, CONSERVATION of fauna and flora should be considered as an element of NATIONAL SECURITY. Conservation and the value of biodiversity should aim at maintaining NATURE as the foundation of human life."

Hunting in South Africa takes place on three levels. Sport hunting or trophy hunting is of course the most expensive form and requires a professional hunter to assist with the hunt. Secondly, there are recreational hunts or so-called 'biltong hunts'. Biltong hunting is not regulated and often inexperienced hunters take the field, resulting in wounded animals in wide open spaces. The third type is illegal hunting or poaching. Poaching is not only relevant to rhinos, as many different species get poached. This is, of course, another reason why the protection of rhinos is so important: all poaching activities would then be restricted and many more species protected.

The hunting industry is represented mainly by two organisations, the Professional Hunters' Association of South Africa (PHASA) and SAGCA (South African Game and Conservation Association). Both these organisations have Dr H. Els as chairperson and spokesperson. It is relevant to mention that only 0,004% or 200 000 people are registered hunters in South Africa. Hunting is thus not an activity in which the average citizen engages. The reason is mainly that it is viewed as an 'exclusive rich white man's sport'. This is relevant in view of the fact that white South Africans (hunters and farmers) are arrested in poaching activities. Lawrence (2011) refers to the 'Boere Mafia', a clear indication that rich white South African citizens are involved. Research indicates clear links between poaching and hunting (ARA, 2009).

McNeely et. al. (1990) also indicate a global decline in hunting as a sport, yet more and more hunts take place on South African soil (ARA, 2010) and as many as a million animals are hunted annually.

Booth (2010) did intensive research into the contribution of hunting tourism, and even developed a model as to how the contribution could be included in national economies, yet, as is clear in this study, it is not significant enough to be included in the tourism industry's marketing or strategic plans. Van der Merwe et al. (2003) agree with this view and indicate that the hunting industry should include MORE tourism activities to support hunting tourism.

Consensus with this view was found in the research literature and is discussed in more detail in later paragraphs of this document (Bulte & Damania (2005), Deere (2011), Milledge (2007), IUCN (2011)).

The advantages of hunting are clear. It is done in areas of low population, a variety of wildlife is needed and the capital costs are lower.

Booth (2010) argues strongly that a policy framework is needed, but the problem areas in this regard are the following:

- Concession agreements and stakeholders' regulation within the industry are urgently needed.
- The selection of trophy animals is problematic.
- The level of development of ecosystem management is crucial.
- Other tourism activities are needed to support hunting. Van der Merwe et. al. (2003) support this view.
- Political stability is crucial (refer to Limpopo, Mpumalanga and North West provinces)
- Policy frameworks and implementation are lacking (refer to ARA, (2010) The Hunting Industry: a Bloody Mess)

In neighbouring countries, where wildlife belongs to the people, certain fees are allocated to wildlife services or utilisation of these services, and can thus be directly allocated for conservation efforts. In South Africa the hunting fee goes directly to the owner or hunter. Usually, the rancher/farmer undertakes the responsibility of the professional hunter. (At a million rand for a rhino hunt it indeed becomes a lucrative business.) These fees exclude all other services like permit payments, taxidermy fees or trophy mounting fees. South Africa is the only country in the world where wildlife belongs to the 'owner', and the only country where the BIG 5 can legally be hunted.

In South Africa, more than 1 000 000 animals are hunted every year and 65 species are commercially farmed. Besides Tanzania, South Africa is the largest hunting destination in the world (ARA, 2010).

With all the irregularities in the industry, such as pseudo-hunts, medical hunts, put-and-take hunts and canned lion hunts (lion-hunts contribute largely to income in the hunting industry), proper regulation and stakeholder strategies are desperately needed. This is specifically the case with rhino hunts.

No reasons could be found why the hunting industry takes such a strong stand against the moratorium on rhino hunting, as all studies in this regard indicate absolute mismanagement and a desperate need for proper regulation within the industry. The moratorium could provide some time for the hunting industry to get their house in order and negotiate regulatory and streamlined strategies to be implemented in the industry.

It is clear that regulation of the hunting industry is desperately needed and alignment to the NEMBA Act required. The NEMBA act clearly states that a "hunting organisation means any organisation that represents hunters, has an accepted constitution and a CODE OF CONDUCT that provide for disciplinary action should members not adhere to the code". Despite all the atrocities going on in the hunting industry and problems regarding the issuance of hunting permits for rhino hunts, evidence could not be found that regulation of the hunting industry is actually happening, and usually blame is placed on the government for this.

The moratorium cannot significantly harm the hunting industry as such, as there are 64 more species that can be commercially hunted.

The hunting industry is at the moment extremely controversial. Many discrepancies and non-regulation are evident. Therefore no reason could be found for strong lobbying to open the trade, other than financial gain of the hunter.

#### **4.3.2 Wildlife ranching in South Africa**

Ranching is defined as 'farming or agricultural activity focused on maximising profits', yet the role of the ranching industry cannot be underestimated in breeding programmes. Ranching can take place in areas not suitable for livestock farming, often in extreme habitats. Large open areas are utilised and wildlife numbers increase. These animals are then sold on live auctions or specifically to hunting reserves. The assumption can therefore be made that the ranchers breed and the hunters hunt. The more animals bred, the more hunts can take place. Breeding programmes are there for only relevant in 'growing' numbers of animals to be sold for profit. Often these animals end up being hunted, which again is for the exclusive financial gain of hunter or the owner of the hunting farm.



In this regard a number of studies investigated the contribution of wildlife farming to conservation – the study by Bulte & Damania, Department of Economics, University of Adelaide (2005) is specially relevant. This study analysed the economics of wildlife farming and developed different models for this economic approach. The findings indicate reasons why wildlife farming can stimulate poaching. The authors maintain that information campaigns (awareness) are aimed at lowering consumer demand by stigmatising the consumption of products. This view is supported by Scott (2011) and Robinson (2009), who discuss the effect of stigmatising and outrage.

The value of focused awareness campaigns and outrage about the use of illegal products can therefore not be underestimated.

The arguments and models used by Bulte and Damania stress the fact that the wildlife trade is based on imperfect competition, and few active traders (criminal networks are involved in different illegal markets) are involved. These researchers argue that competition from farms triggers responses from illegal traders, and specifically refer to poaching as one of these options.

The emphasis on ecosystem management and conservation is not the main concern in wildlife farming as the focus is on breeding a few species to be sold for profit. In conservation as such, habitats are developed and large ecosystems maintained to improve a variety of species and to ensure that land areas are returned to their original wild state.

The National Agricultural Marketing Council conducted an in-depth analysis in 2006 to identify problems of sustainable growth in the sector. Similar problems are evident in both ranching and hunting.

According to this report, South African wildlife ranching is an interactive industry and operates in a number of sectors in the South African economy. The main role players are the Department of Agriculture, the Department of Tourism and the Department of Environmental Affairs.

As early as 2005 a panel of experts was appointed to set specific norms and standards for the ranching and hunting industries and a number of recommendations were made. These included aspects like regulatory differences and control between provinces, a national set of norms and standards and appropriate training opportunities. One of the key concerns was ETHICAL and RESPONSIBLE hunting.

The report focused on a number of problems in the ranching and hunting industry, which included:

- Ethical hunting and selection of trophy animals
- Promotion and training in regard to KNOWLEDGE and LOVE for wildlife
- Regulation of the taxidermy industry
- Legislation in regard to translocation and coordinated legislation in the nine provinces (Wildlife is transported illegally due to the high cost involved)
- No existence of operational standards and a shortage of skilled staff.

Focus is placed on the problems in the hunting industry and the involvement of ranchers and supply chain management related to a number of transgressions. Hunting statistics indicate the large amounts of money generated by rhino hunting (PHASA, 2010) and it is therefore understandable that ranchers will want to breed animals. But these figures are indicative of flawed principles,

namely, the more rhinos the ranchers breed, the more the hunters hunt. Again, the canned lion industry becomes relevant, as the hunting statistics indicate high income from lion hunting. Again, numbers increase through ranching, but it does not contribute to the future existence of the species in natural environments, and therefore no conservation is evident.

Bulte & Damania (2005) indicate imperfect competition, with ranchers manipulating the market and controlling prices, thus reducing the value of wildlife in natural habitats. These authors indicate cooperation with illegal trade, with the purpose of controlling market trends. This view is in accordance with findings by Milledge (2007), which directly links stockpiling with suppliers in South Africa.

The question can thus be asked: HOW RESPONSIBLE and ETHICAL is the RANCHING INDUSTRY, with specific relevance to rhino farming?

It is evident from the available literature that South Africa lags far behind neighbouring countries in terms of land area allocated to conservation. Only 5.5% of land area is dedicated to conservation, while in Botswana, Namibia and Tanzania this figure is above 10%, with Botswana as high as 18%. Again, these countries have specific revenues associated with conservation areas and hunting, and these funds are directly distributed to improve conservation efforts.

Ranching as an activity is closely related to agriculture as the aim is to produce as many animals as possible and to breed for profit. South Africa already has 82% of its land area allocated to agriculture, with ranching being allocated a massive 16.8%. However, the agricultural industry contributes very little to the national GDP. Deere (2011) stresses the need for ecosystem management rather than growing the numbers to ensure sustainable hunting and breeding.

In addition, the agricultural sector is burdened with a number of problems that need to be addressed (see section 7.5) to enable the industry to empower employees to become economically active members of society and allow them to rise above poverty levels (Department of Agriculture, Forestry and Fisheries, 2010). Employment opportunities specifically in ranching and hunting are extremely limited.

This report indicates that despite a land area of 82%, agriculture contributes as little as 5% to employment opportunities in the South African economy. This is specifically relevant in rural areas. This cannot be compared to the possible economic growth and empowerment evident in the tourism industry (see section 7.5).

In addition, the NAMC report mentions the fact that South Africa does not meet CITES requirements, as discussed in Chapter 5 of this document.

Ranchers often argue that no investments will be made in rhinos any more, and that ranching is the only way to ensure future investment in the species, but disregard and underestimate the contribution the tourism industry makes to proper ecosystem management and natural breeding processes, which spread the gene pool and ensure the future existence of the species as indicated by Fowlds (2012).

As indicated by Van der Merwe (2003) and Bengis (2012), normal market forces are responsible for the decrease in rhino prices. The larger the supply available and the lower the price of a product, the

more consumers are exposed to and can afford the product, therefore more reserves will buy rhinos. The current poaching affects the ranching industry as prices for rhinos decrease, but it builds the tourism industry because the global awareness on the plight of the rhino increases visits to the country.

Ranching as an economic sector of the economy should focus on eliminating problems within the industry, regulate the stakeholders involved, address provincial and national legislation with government. Sixty-four other trophy species can be bred, rather than pressuring for an open trade with so many uncertainties.

### **4.3.3 The Private Rhino Owners Association (PROA)**

Perhaps the most controversial organisation investigated in this research was the PROA. From research findings, it is evident that this organisation was created to unite the above stakeholders into one organisation with the main aim of pushing for the trade.

Evidence was found that less than 25% (24.6%) of private rhino owners are interested in financial gain from the species. These findings were made by Spenceley & Barnes (2006) in a detailed study to determine exactly why private owners invest specifically in rhinos. It was found that the vast majority (75%) do it with the main purpose of 'protecting an endangered species' and inviting the public to enjoy 'wildlife' as means of 'earning an income'. This view is also evident from the large number of social media groups, the websites of tourist attractions and conservation agencies and private e-mails in the possession of the research team.

The main aim of PROA (under chairmanship of Mr P. Jones) can thus be assumed to be misleading the general public (the rightful owners of 75% of the rhino population of the country) into believing that its opinions and decisions represent those of all private rhino owners in South Africa. To achieve this, disregard of opposing ideas and different viewpoints are evident (proof of this and personal statements in this regard are in possession of the research team).

Evidence thus strongly indicates that private rhino owners, who belong to the pro-trade group, are a mere 5% of all rightful owners of the South African rhino population. With the current poaching levels, it becomes even more evident. Private reserves do everything in their power to save the species, as is illustrated by Dr Fowlds' recent attempt to save rhinos from poaching on Kariega Reserve, or the horn treatment on the reserve in Gauteng which made headlines in the media.

To convince South Africa citizens and the 75% of private rhino owners to agree to their points of view, a massive PR campaign had to be launched. This was done by engaging Lead SA, a prominent subsidiary of one of the largest privately owned media organisations in South Africa, PRIMEDIA. Mr Jones serves as chairperson of the rhino conservation group for Lead SA, which provided a public platform to advocate a strong pro-trade stand. A number of e-mails are also in the possession of the research team from concerned individuals from the anti-trade stand (which include private reserve owners and conservation initiatives) to these media platforms questioning the pro-trade stand and requesting exposure to the anti-trade stand. Responses were seldom received.

#### **4.4 Other stakeholders (neutral)**

A large number of conservation organisations are also present in the debate, which include the SADC Rhino Management Group, WWF, TRAFFIC, IUCN and others. These organisations focus on conservation, and many of them focus on the survival of the species and the protection of wild ecosystems. They are actively seeking solutions to the problem, and by no means advocate 'the trade'. These organisations have different viewpoints regarding dehorning as a mean of protecting existing populations, and revenue which can be obtained from stockpiled stock. Most of these organisations object strongly to 'farming' as a commercial trade. Many incidents of wrongful interpretation of stakeholders' comments are reflected in the media, and fuel the debate even further.

Proof of this exists in e-mail responses from Dr Mike Knight (Chairman of the SADC Rhino Management Group) and Sonja Meintjies (DEA). These e-mail communications are in the possession of the research team.

#### **4.5 Anti-trade stakeholders**

Anti-trade stakeholders are mainly members of the tourism industry and the South African public. The South African public prefers the rhino in natural environments and in natural ecosystems. This is evident from a number of social media groups, public websites and actions undertaken by individuals. No public platform like Lead SA exists to explain points of view, and few media broadcasts ever accommodate anti-trade views.

One of the reasons for this point of view is the exponential growth in the tourism industry, which is very reliant on the BIG 5, as one of the country's unique and premier export products.

The tourism industry's reliance on the anti-trade stand for their existence is explained in detail in Chapter 7 of this document.

#### **4.6 Conclusion**

It is clear that different viewpoints are held by stakeholders. The following are evident:

- The PROA is not representative of all private rhino owners in South Africa, as it represents as little as 25% of private rhino owners, and this is less than 5% of the total number of rhino owners in South Africa.
- The pro-trade stand is represented by a number of unregulated, unfocused industries and organisations, who should first get their houses in order and involve stakeholders on all levels to ensure regulation of individual industries, rather than pushing relentlessly for open trade, which can only lead to the extinction of the rhino in the wild (refer to Chapter 6).
- No reasons could be found in the literature or elsewhere why these organisations oppose the moratorium on rhino hunting, or so strongly advocate open trade in rhino horn. As for both dominant organisations, there are 64 other species with which they can breed and trade or engage in trophy hunting.

- A number of economic studies were done to determine the economic viability of opening the trade, but none of them indicate this as a possible solution to reducing or curbing the poaching (Scott, 2011) and Bulte & Damania, 2005).

## **Chapter 5 Regulation (international (CITES) and internal (TOPS)): Trade in endangered wildlife species**

### **5.1 Introduction**

In view of the fact that the bans (local and international) on illegal wildlife trade, and specifically the CITES regulations, are often blamed for the escalation of poaching incidents (specifically by the pro-trade activists Els (2012) and Eustace (2012)), an analysis of these regulations was needed in this study. It must be stressed that rhino experts clearly indicate that the earlier trade bans seemed to work in the 1970s and 1980s (Emslie & Du Toit, 2006; Spencely & Barnes, 2005). The reason for this was that the bans were accompanied by dedicated, well-structured conservation initiatives, in which hunting formed part of a well-controlled and regulated strategy (this is still the practice in other range states).

This study specifically focuses on China, as representative of the Asian economy, and South Africa, as evidence exists that supply syndicates are strongly established in South Africa. Of course, it is a South African issue, therefore the country's contribution and implementation of CITES regulations are crucial.

### **5.2 CITES: Purpose and role in the debate**

Regulation of international trade in wildlife and wildlife products is achieved through the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). This is an international agreement and all international signatories are expected to meet specific obligations and requirements. This convention was signed in 1973 and came into force in July 1975. In South Africa, the specifications came into force on 13 October 1975. The Department of Environmental Affairs is responsible for coordination, policy determination and international liaison. The DEA is therefore the Managing Authority (MA) in South Africa.

The objective of CITES is to regulate and monitor international trade in endangered wildlife which are or may be affected by this trade. CITES operates through a permit system based on the listing of the species linked to the threat of over-exploitation through international trade. Focus is placed on the survival of species in the wild. Strict regulation of trade in endangered species is enforced by CITES, but this needs to be closely regulated and monitored by regional and national governments (DEA) ([www.cites.com](http://www.cites.com)). If regulation by local authorities is not strictly applied and enforced, CITES bans become irrelevant.

Species in CITES Appendix I are those that are threatened with extinction and existence in the wild may be affected by international trade. No trade is therefore allowed in species included in Appendix I. The black rhino is listed in Appendix I. Because hunting is not viewed as trade, restricted hunting permits are allocated to hunt these species.

CITES Appendix II includes species which might become threatened with extinction unless trade is strictly controlled. The white rhino (only in South Africa and Swaziland) is listed in Appendix II.

This means that only these two countries are allowed limited trade in white rhino products.

Although the rhino population needs to be protected through the CITES trade bans, a number of issues are relevant and a major concern is the regulating and reporting capacity of South Africa.

Role players in this regard, like Tom Milliken (TRAFFIC), and SANPark's representatives agree that opening the trade is not the solution to poaching, as the demand is not known and there is no way that it could be determined (Slater-Jones & Naidoo, 2011). This problematic issue is discussed in Chapter 6 of this document.

In this regard, Eustace (2012) argues a strong case for opening the trade, but disregards the fact that much more is at stake than mere financial figures and calculations of available horn (refer to the definition of conservation economists in section 3.4). He takes a strong stand against CITES and even suggests that CITES should be ignored and it should become a South African issue. This, of course, is not possible, as international agreements are involved (refer to the 'far business environment' in section 6.1).

Eustace disregards many elements relevant to the debate. For example, the fact that lowering the price immediately creates an increase in demand. This increased demand is not known. Many more consumers are exposed to the product and the illegal supply chains remain intact. This notion is strongly supported by a number of researchers (Robinson, 2009; Scott, 2011; and investigation agencies mentioned above).

Another relevant concern is the levels of corruption and the syndication within South African borders. The provinces in South Africa with the highest poaching figures are also the worst in terms of political turmoil and therefore corruption is rife (Limpopo, Mpumalanga, North West and recently KwaZulu-Natal).

Conversion of capital into the tourism industry results in only 25% (Spencely & Barnes, 2005) of private rhino owners willing to enter the trade, an additional factor in need of consideration.

To further complicate matters, a census and accurate figures regarding stockpiled horn and live animals are desperately needed. Although Eustace (2012) proposes a strong regulation system, no evidence exists that this is at all possible, in light of the laundering of legal stock into illegal supply chains. Regulation can only regulate the legal supply as he suggests, but no proof exists that it will by any means curb the poaching or regulate the illegal demand.

This argument is supported by the detailed analysis of Milledge (2007) for TRAFFIC on the illegal killing of African rhinos. A major concern is the fact that South Africa has a low recovery rate of poached horn of only 54%. This indicates laundering from private rhino owners and is strongly supported by findings by Michler (2008) published in *Africa Geographic*, September 2008. This investigation indicates that poaching and illegal supply chains cannot be operational without South Africans being involved. In 2011, Michler found 'mafia-style' intimidation that destroyed a court case and let culprits go free (*Africa Geographic*, March 2011).

Further questionable statements in Eustace's article include the fact that Asian counties (specifically China and Vietnam) will regulate trade if it is a legal trade. No proof of this exists, as it is clear that China does not even control illegal trade, even if the use of illegal animal products is prohibited. The WWF indicated Vietnam as one of the worst countries to regulate illegal trade (WWF, 2012).

Scott (2011) argues opposing views to Eustace's (2012) arguments and provides financial arguments in accounting terms. She accentuates the low costs involved to the poacher (easy access to the product with little or no consequences). Her findings conclude that the consumer will prefer the lowest price, which will be for the illegal product.

If the demand is as small and restricted as Eustace suggests, a well-defined, focused awareness campaign can significantly reduce the use of the product, demand can be reduced and the rhino can live happily in the bush and entertain tourists in Africa. Evidence (Scott, 2011; Bulte & Damania, 2005) indicates the increased cost and risk to illegal traders that can result from outrage and stigma.

Statements like "trade bans never work" can therefore be disregarded, as evidence suggests that they worked in the past when they formed an integral part of a well-constructed, regulated and focused conservation strategy. If trade bans are strictly enforced, all stakeholders regulated, and the judiciary realises the importance of heavy sentences for wildlife crimes, there is no reason why a trade ban will not work, as it has worked in the past.

### **5.3 CITES regulation and China (as representative of the Asian economies)**

In pro-trade lobbying the focus is often on the fact that the demand is from the Asian markets, therefore a thorough investigation in this regard was required. CITES allows countries that export endangered wildlife products to determine 'countries not suitable for imports'. These countries do not have appropriate measures in place to monitor the use and destinations of hunting trophies, as it is clear that trophies are not used as such. This in itself should be a source of great concern.

CITES regulations stipulate that parties must submit two reports on the action taken by the specific country to meet requirements. The first is an annual report containing figures and numbers of products that were legally traded with permits and the second is a bi-annual report focusing on actions the specific country has taken to ensure that awareness is created, legislation is in progress, training programmes have been established, government departments work cooperatively to ensure requirements are met and administrative measures are taken to enforce the obligations as required by the convention. In this regard, an analysis was made of the most recent bi-annual report China submitted (01/01/09 to 31/12/2010). According to this report, as supplied by the Chinese Management Authority (MA), the following are evident:

- China has completely prohibited the use of illegal animal products.
- China enforces control over CITES trade and legal obligations are enforced.
- Coverage of law over all types of offences exists.
- Compliance monitoring operations have been undertaken in regard to traders, markets and border controls.
- Cooperative enforcement with other countries takes place.
- Incentives have been offered to local communities to assist in enforcement of legislation.

However, after investigation of the detailed information (as supplied by China) from this report, the following became evident:

- No public educational programmes exist.
- No inter-sectorial communication within state departments exists.



- Memoranda of understanding only exist between the Management Authority and Customs and not with the police, other authorities, government organisations or private sector bodies such as medical practitioners.
- Awareness material only includes leaflets on tigers, which are indigenous to China.

This report requires an addendum to be completed, with a table indicating total seizures and confiscations, and a second table to indicate how many and what type of seizures were made. From these tables it was clear that 1 025 confiscations took place but only one rhino horn was confiscated. The majority of the confiscations were ivory related, but the assumption can be made that either customs officials do not distinguish between rhino horn and ivory, or China does not receive illegal rhino horn imports.

As is indicated in paragraphs below, the Chinese people strongly protecting the panda, the focus is on tigers and they strongly oppose wild bear bile products. Therefore it can be assumed that the same attitude would be taken towards rhino horn, IF THE CHINESE PEOPLE KNEW THE PLIGHT OF THE RHINO. To embark on massive awareness campaigns in Asian countries, and engage in inter-governmental negotiations is thus crucial and can strongly assist in countering the problem.

## **5.4 South Africa and trade regulations in the rhino trade**

### **5.4.1 CITES**

South Africa is also a signatory to the international trade agreements and a member of CITES. In this regard, a great concern is noted by the research team. South Africa has never submitted a bi-annual report as required by the agreement. It is therefore evident that South Africa lacks all requirements and no reporting in this regard takes place. From personal experience and work done for a number of NGOs, the following are evident:

- Control over CITES legislation is not adequate.
- Consistency in existing policy on wildlife management and use is not adequate. This indicates that South Africa has the necessary laws and processes in place, but does not properly implement them.
- Application of the law for all types of offences – not effective, as suspects return to the industry without delay or any legal action (the ‘no-bail’ principle). Postponement of court cases results in suspects being out on bail and thus being able to destroy evidence or continue illegal activities.
- Implementation of regulations is not adequate. Much harsher penalties are required.
- Compliance and enforcement measures: not adequate; the Mozambique border is a typical example.
- Cooperative enforcement activities have only recently started, but action is not yet indicated (Press Release DEA: March 29 2012).
- No or few incentives have been offered to local communities to assist in law enforcement.
- No capacity building initiatives has been done by the Managing Authority (DEA), as all awareness programmes, booklets and pamphlets are distributed by NGOs. No public education programmes have been initiated by training institutions, departments of

education or communities. Active awareness campaigns are not even visible in the KNP (the killing grounds).

In 1997 the South African government made a proposal for opening some well-regulated trade agreements and down-listed the white rhino to CITES Appendix II. The aim was to expand populations over larger geographical areas and the focus was on the sale of live animals and stockpiled horn obtained through natural deaths. This would have been STRICTLY REGULATED and contributed to the establishment of mega-populations. Even then, the WWF stated that proper management of the process was still lacking in different areas.

The ONLY contribution trophy hunting (as a CITES-regulated activity) should make was for conservation management purposes, within a strictly and well-managed conservation plan. Take-off should only be considered for excessive and old male rhinos beyond their reproductive age (COP 10 Submission, proposal 10.28, 1997). This of course is not the case, as the PROA and PHASA clearly explain the concern of female animals as young as six years being hunted. The question again, how is this regulated in practical terms?

Reserves donated or re-located excess animals to other conservation reserves, with the specific aim of establishing meta-populations and broadening the existing gene pools. This is still the practice at some private reserves, where the future existence of the species is the main concern and not financial gain (Fowlds, (wildlife veterinarian) March 2012). This indicates that there are workable solutions should the survival of the species be the main concern.

#### **5.4.2 Internal control of endangered wildlife products in South Africa (TOPS)**

CITES deals only with international trade in endangered wildlife products, with the main purpose being to protect endangered wildlife in natural environments. Internal trade is regulated by government agencies. In South Africa, this trade is regulated by TOPS regulations. These regulations were drafted in 2007 and became applicable in March 2008.

Again, a detailed document was developed with specific guidelines and exact requirements as to processes involving all restricted activities. If these regulations are strictly followed and applied, competent and non-corrupt officials and ethical hunters are involved, and the issuance of permits is done in accordance with these guidelines, many loopholes in the hunting industry could be eliminated.

Specific reference can be made to TOPS Regulations 24 and 26, which include the following:

A permit MUST be refused for:

- Hunting in a controlled environment.
- Hunting of an animal under the influence of tranquilisers.
- The prohibition of put-and-take hunting (an animal must be released into the wild at least 24 months prior to a hunt).

Yet, these and 'pseudo hunts', 'medicinal hunts' and other transgressions are often realities, and hunting permits are continuously issued.

Heavy reliance of the DEA on provincial agencies is clear (2009, written answer to Mr Gareth Morgan, Press release by the DEA, March 2012 and others), while the facts indicate under-resourced, under-skilled staff who desperately need appropriate values and appreciation of natural resources in natural environments.

Specific reference is also made to a Biodiversity Management Plan, which should have been finalised in 2009, but was still in the initial phases in November 2011 (Knight, 2011, SADC Rhino Management Group). If this plan is finalised, activities would strictly adhere to the regulations specified by CITES and TOPS, applications and issuance of hunting permits would be strictly in accordance with these guidelines and requirements, and hunting could contribute to the conservation and protection of the rhino.

Add to this the political turmoil and levels of corruption, specifically in the provinces where the rhino populations are the most vulnerable (Limpopo, Mpumalanga and North West), the vacancy rate in nature conservation management positions of 51% (ESSPSA) according to SANBI (Skills for Biodiversity) and the desperate need for management skills and appropriate values (love for nature) as explained by SANBI, and it becomes clear that on such a foundation regulation of any trade is basically impossible, and therefore not at all recommendable.

In this regard, Emslie & Brooks (2010) mention the importance of conservation efforts in black rhino expansion projects and emphasise the success of these efforts from 1980 to 2010, when basically NO hunting was allowed. They emphasise the importance of monitoring and law enforcement. This notion is supported by Tim Jackson (*Africa Geographic*, 2012), who states that that dehorning still needs strict law enforcement and intensive anti-poaching initiatives are required. Tony Conway (Chairman of Ezemvelo KZN Wildlife Rhino Management Group) and Raoul du Toit (Director of the Lowveld Rhino Trust, Zimbabwe) agree with Jackson.

In 2009, after the escalation of poaching, specifically in the KNP, a ban on any trade in rhino products was enforced by the DEA. This was done because CITES do not have any influence on internal trade. This was far too late to curb the international black market demand and syndication in South Africa.

Clear indications exist that the supply syndicates (on a global front, not excluding South Africa or other range states) were stockpiling with the anticipation of international trade being opened after the down-listing of the white rhino (this can be seen as the signal for trade to become a reality in future). It is therefore not the CITES bans that did not work, but the down-listing of the white rhino in 1997, which signalled the future opportunities of possible trade, encouraging traders (local and international) to start stockpiling, with no regard of the future existence of the species.

Again, emphasis needs to be placed on the greed of few individuals., Poaching activities escalated in government reserves and less secure populations instead of caring for the species, corruption is the order of the day, and distribution channels into illegal markets are clearly established.

### **5.4.3 Conclusions**

- CITES cannot be held responsible for the poaching as CITES requirements are not met. South Africa (DEA) lags behind in the submission of the required reports (the bi-annual report on progress to ensure regulation, education and awareness).

- The down-listing of the white rhino in 1997 signalled the possibility of opening the trade, and until 2008 stockpiled horn was sold illegally. After depletion of this stock, poaching escalated. The internal ban on the trade was not effective as no internal demand for the product exists, except from the supply syndicates within the borders of South Africa, who were stockpiling horn for possible future trade. As early as 2007, Milledge (2007) indicated this as a problem in an article entitled *Illegal killing of African rhino and horn trade, 2000 - 2005: the era of resurgent markets and emerging organized crime* (Published in *Pachyderm* no. 43, July – Dec. 2007).
- If the TOPS regulations are applied and strict regulation maintained, many problems in the hunting industry could be eliminated.
- The DEA is far too reliant on the provincial agencies which are extremely understaffed, underskilled and lack values to respect nature and nature conservation. Support should be given in this regard.
- Awareness programmes and international negotiations can play a crucial role in reducing demand in importing countries.
- One of the crucial issues addressed at the Rhino Summit at the end of 2011, was the development of a representative and dedicated task team, inclusive of all stakeholders in the field, including South African citizens, which needs urgent attention.

In this regard, two separate applications have been made to CITES to re-list the white rhino to Appendix I: Critically Endangered.

- BUSHWARRIORS and concerned citizens requested the US Fish and Wildlife CITES Working Group for inclusion in their submission to the CITES Working Group of the USA (CoP 16), which could not be done as the necessary statistical information was lacking from the South Africa Government.
- A second URGENT request by SanWild was made for a special meeting by the CITES Working Group in the United Kingdom to call for re-classification to Appendix I. Again, numerous e-mails were sent to the DEA requesting statistical information, but no response is evident.

From this investigation into the regulation of international and internal trade, it is clear that ethical and regulated action is crucial prior to any possible trade negotiations.

# **Chapter 6 Economic analyses of the trade in rhino horn as a possible solution to the poaching crisis**

## **6.1 Introduction**

An investigation of any product in international markets needs to be analysed in terms of three distinct economic environments. This is known as the business environment. These include:

- The 'far' business environment covers aspects that can influence the business, but over which the trader has no influence. These include international agreements (CITES) or existing policies and specific legislation (TOPS). The far environment includes social, economic, environmental and political influences (political turmoil, mismanagement and corruption in different provinces and government agencies).
- The 'near' economic environment refers to the economic factors that cannot be controlled by the trader, but can to a certain extent be influenced by business operations. These factors include customers, contractors, supply chains and competition between traders (see section 6.7).
- The 'internal environment' refers to the trade aspects that the trader can influence within his operations and include strategies, operations and internal procedures the trader conducts (see section. 6.7.3) (Stapleton, 2010; Van Rensburg, 2005).

The business environment is specifically important to trade on international markets (Stapleton, 2010; Van Rensburg, 2005). In this regard it is relevant to refer to the intensive analysis and strategy development the National Department of Tourism (NDT) engaged in prior to building strategies for market expansion. This is discussed in more detail in Chapter 7 of this document.

It is neither within the scope, nor is it the purpose of this study to investigate each of these economic environments in detail, but merely to provide an indication of the spectrum of factors needed to be investigated prior to opening trade.

A few influencing factors will therefore be highlighted.

## **6.2 Global trends**

### **6.2.1 The global economic crisis**

Currently, global economies are faced with a slow recovery from a major global recession. This economic crisis is often described as the worst in history. The recovery rate is slow and doubt exists whether some economies will be able to recover at all. This has resulted in large corporations and global banking groups changing their ways of doing business. Wall Street has adjusted payment policies and Citigroup and Morgan Stanley are debating how to handle the process (Cohan, 2012).

The EU crisis has not yet been resolved and economists doubt that countries like Greece, Spain and Italy can recover without massive assistance from the Euro Zone. Questions have arisen as to whether recovery of the Euro Zone is possible at all. The effect is that workers in Greece are actually paying (through taxation) merely to have a job, yet, tourism arrivals from EU countries are rising (see Chapter 7).

Economic recovery has forced populations around the globe to change their perspectives on sustainable practices. The focus is being placed on reduced costs and more responsible consumption of natural resources. This can be seen as a global shift towards sustainable practices. The effect of over-consumption of natural resources and costs related to global warming are carefully considered, and risk analyses needed to include these costs are being done.

### 6.2.2 Sustainable development

A number of global actions prove that there is a global trend towards sustainable development:

- The EU has intensive programmes for environmental responsibility in place, to such an extent that carbon taxes will soon be imposed on any airline crossing EU airspace.
- Australia has recently announced the introduction of carbon taxes to cope with high CO<sub>2</sub> emissions and to ensure responsible consumption.
- The United Nations: Ban Ki-Moon, Secretary General of the United Nations, has urged global economies to “Put the Planet and its People First” ([www.guardian.co.za](http://www.guardian.co.za)).
- In the EU, the tipping point for clean energy is predicted to be reached this year. Switzerland has the cleanest environment on the planet (World Economic Forum, SAPA, 2012/02/03.)
- Peru, Bolivia and indigenous cultures of the Amazon rainforests are well on the way to writing ‘The rights of Mother Nature’ into legislation.
- More recently, one of the largest online retailers, [www.amazon.com](http://www.amazon.com) has been forced by public demand to remove all dolphin and whale products from their sites ([www.change.com](http://www.change.com)).
- With specific reference to the rhino crisis, the South African public has contributed to the following actions on the international front through public outcry, social media networking, numerous petitions, marches and court protests, pressure on government agencies, awareness programmes locally and networking with Asian social media groups:
  - The USA launched a massive Operation Crash, in which seven syndicates were exposed within a week
  - The EU enforced a moratorium on any trade in rhino horn products
  - Vietnam launched national awareness campaigns in the use and medical value of rhino horn ([www.wildaid.com](http://www.wildaid.com))
  - In Nepal, more arrests are being made in connection with rhino horn trade
  - International television broadcasts, postings on YouTube and reports in the printed media have created awareness on a global front.

These facts indicate that the global economy currently has two main driving forces. The first is the recovery from the global economic recession and the second is a definite shift towards sustainable development, in which natural resources and respect for natural ecosystems are becoming increasingly important.

The reason for this is obvious: the natural resources of the planet cannot sustain the global over-consumption of a growing population. Specifically in Africa, the protection of natural resources and ecosystems are crucial to the continent’s growing tourism industry with the focus on nature.

### **6.3 The Asian economy**

In this regard, the study focused on the Chinese economy as the Chinese population is by far the largest in the Asian economy. With a population of 1.3 billion people, this is representative of the proposed market. Although Yemen and Vietnam are included in possible market penetration, the focus is on the Chinese economy.

The global influences mentioned above also affected the Chinese economy; in fact, even more so due to the size of the population and the massive destruction and exploitation of China's natural resources. It is therefore not surprising that China can be viewed as a leader in alternative energy innovations and developments in green technologies. The Chinese economy did not have a choice! Their natural resources are depleted and alternatives are desperately needed. This explains the urge to expand economic activity into Africa, with its relatively cheap resources and low labour costs.

The move towards alternative and natural medicines was the result, and the broad consumer base of China led a global explosion of the use of traditional healing methods. Yoga and associated practices and a firm belief in the healing powers of extracts from natural products are becoming increasingly important. As Traditional Chinese Medicine (TCM) focuses on herbal and plant extracts (more than 90% of products are plant/herb based), and with the global trend towards a more sustainable approach and responsible consumption, the wave would also affect the average consumer in China. This statement is strongly supported by Robinson (2009).

The focus on responsible consumption and animal rights resulted in the Chinese people rejecting an application from a large company, Guizhentang, to produce a tonic with bear bile as a key ingredient (Kurtenbach, 2012). This notion is supported by research conducted by the Nature Conservancy, which investigated a Chinese billionaire safari, indicating a strong pro-nature stand and a respect for Africa's wildlife and contributions towards protecting it. Robinson (2009) indicates that TCM's main focus is on a balance between mind, body and soul in synch with the natural world as part of existence.

To argue an exponential growth in the Chinese economy (t Sas-Rolfes, 2012) is plainly untrue, and indicative of misleading the reader towards a positive stand on trade in rhino horn. As the largest economy in the world, the Chinese economy has also suffered severely from the effects of the global recession.

This is evidenced by the fact that the Chinese Government has had to reduce normal poverty levels to the extent that a 100 million more citizens could be included in 'below poverty' levels merely to ensure their survival (The Economist, 2011). A slow recovery of the Chinese economy is expected.

### **6.4 The South African economy**

The same tendency is taking place in South Africa. According to The Economist of October 2011, South Africa entered the recession in May 2009. As every consumer knows, the consequences are felt in daily life, specifically in the recovering phase of the crisis.

The problems in the South African economy, which is heavily reliant on fossil fuel, are well known and include high food and fuel prices, , poor service delivery, extremely high unemployment, skills

shortages, high poverty levels and some of the highest crime rates in the world. To these economists add problems such as corruption, no political will towards decision making and a lack of decisive implementation of developed strategies.

Unfortunately, South Africa does not keep up with the trends set by global leaders in sustainable development, resulting in extremely high levels of biodiversity loss and a small percentage of land (5.5%) allocated to conservation efforts.

Problems related to the environment are well known: acid mine water, degradation of land, pollution of water resources, the fracking issue, allocation of water licences without proper environmental assessments, mining in World Heritage Areas, to name a few. All this adds up, according to a study by Yale, Columbia, to South Africa being the country with the worst environmental degradation among 132 participating countries. The study included measures on water, air, biodiversity, ecosystem degradation, agriculture and fisheries (SA's Environment Deteriorating: Report. World Economic Forum, SAPA, 02/2012).

**The study makes reference to the rhino and other endangered animal species. Natural resources, specifically large ecosystems, need to be protected, also with the aim of creating employment opportunities. Growing market sectors within the economy have to be supported for future economic growth, economic empowerment and reduction of poverty levels. This is especially relevant in rural areas and relates specifically to the tourism industry (a strong growth sector in the South African economy).**

## **6.5 Product analysis**

Before any trade can be initiated, a specific product for which a demand exists has to be established. With regard to rhino horn, no clear evidence exists of which product South Africa would want to trade with. Is it the current supply of stockpiled horn, or is South Africa considering agricultural activities in rhino horn? A question in this regard is how this would work in practice. Currently, live rhinos in South Africa are clearly the target, and the main focus should be to minimise or curb the poaching.

Three possible alternative products came under investigation.

### **6.5.1 Stockpiled horn**

Stockpiled horn is the most controversial product under investigation. As was mentioned in sections of this report above, different reasons exist for stockpiling horn. These include horn originating from natural deaths and from private owners dehorning rhinos as a deterrent to poaching.

As rhino horn is an expensive product, trade could assist much-needed anti-poaching activities and contribute towards much-needed conservation efforts. This can ONLY be realised if the process can be regulated and not open additional avenues of abuse to existing illegal syndicates. Exploitation in the hunting industry and the need for regulation in the ranching industry were explained in previous sections.

In addition to a number of issues at stake (see section 6.7: Risk Analysis), should the decisions be as simple as this, it might be considered an option. In economic terms, the supply and demand analysis



(flooding the market and a controlled market) can ONLY be relevant when the only variables are price and quantity. In the rhino debate, this is not the case. Once illegal trade is part of the equation, where different market forces are present, the supply and demand theory becomes irrelevant (Scott, 2011; Bulte & Damania; 2005).

Although the figures regarding the stockpiled horn under government protection are known, there are questions as to how much has already been laundered into illegal syndicates, and how much of this has been damaged by insect infestation. There are also questions regarding the involvement of government officials, KNP officials and high-profile employees such as wildlife veterinarians previously employed by SANParks.

A further complicating matter is stockpiled horn in private ownership. Stockpiled horn is strongly linked to laundering of legally obtained horn into illegal markets (Milledge, 2007). Therefore different reasons exist why private rhino owners do not want to declare available stock. Those laundering and selling legal stock on illegal markets will of course not declare available horn to ensure that their illegal activity can continue. TRAFFIC (2011) has directly linked Mr J. Hume with this activity. Private rhino owners who want to protect their rhino in the wild and those opposing the trade are reluctant to give any information regarding rhino or stocks owned by them. There is evidence that poaching incidents or theft have been reported soon after applications for micro-chipping, darting or declaration of stock have been made (Scott, 2011). This accusation is supported by Lockwood (2010), who found a small response rate in research conducted in KwaZulu-Natal. A reason for this was a relationship of 'trust' between the researcher and the rhino owners, clearly indicating reluctance towards anyone seeking information about rhinos.

It can therefore be assumed that pro-trade owners (especially those who are already involved in illegal trade or laundering), want to protect assets for future trade, while anti-trade owners are scared of incidents of poaching or theft as soon as the process of obtaining permits or the reporting process starts. This is a clear indication that syndication and supply chains are well established. The stockpiled horn in state conservancies is well protected, but their locations are quite well known. With skills shortages, a culture of corruption, and high crime rates in South Africa, the state vaults should be easy targets. What is clear though, is that it is perceived to be easier and less risky to poach live rhinos than to obtain stock from secure locations.

In this regard, the low recovery rate of horn in South Africa is another factor of concern. Milledge (2007) indicates a recovery rate of 54% in South Africa. Namibia boasts a massive 288% and Tanzania 200%, which indicates that proper management and regulation, heavy sentencing by the judiciary and community involvement are crucial elements in the prevention of poaching. It should be mentioned that Tanzania is the largest hunting destination in Africa and Namibia is very reliant on tourism, therefore both countries are protecting their rhino in the wild.

These countries have a different approach to conservation. Deere (2011) explains that 'conservation and hunting blocks' could be introduced to enhance wildlife conservation. Together with this, in other African countries, wildlife belongs to 'the people', and a specific conservation fee of as high as 20% is imposed on hunting and utilised specifically for conservation.

Milledge (2007) accentuates the fact that Namibia and Swaziland have managed to reduce poaching to minimum levels by focusing efforts on the interception of horn in transition. The lowest rate of

recovery was reported in Zimbabwe and Mozambique, (both less than 15%), which currently contributes largely to the poaching problem in South Africa.

It is clear that private owners have various reasons for not declaring stocks of stockpiled horn. . The known stockpiles (in state vaults) are well protected..

The assumption can thus be made that stockpiled horn is being laundered into illegal supply chains, and stock held by government agencies is well protected. Legal stock should be marked and micro-chipped, but no proof exist that all stocks are in fact registered. Because of the illegal trade, marking and micro-chipping can only be relevant if all private owners declare stocks, which is not currently the case.

The following need to be considered:

- South Africa has a very high crime rate.
- South Africa is well known for corruption and nepotism.
- It is well known that many of the government conservation agencies are under-resourced and extremely underskilled.
- Although the legislation is clear, it is known that many private rhino owners hold illegal amounts of stockpiled horn hidden on their properties.
- Regulative authorities have neither the capacity nor the political will to enforce strict regulations regarding micro-chipping and reporting of natural deaths (as is the case in the issuance of hunting permits).
- Although a well-established DNA database exists, no assurance can be given that specific stockpiled horn is in fact micro-chipped.
- It is well known that the black market value of rhino horn is very high. Stockpiles of horn should therefore be easier targets than live animals.

Yet, the poaching continues ...

**The conclusion can thus be drawn that it is much easier to poach live rhinos or launder horn into the illegal markets than to steal stockpiled horn. Again, the question to ask is: who stands to gain from the trade?**

### **6.5.2 Farmed (harvested) rhino horn**

Factors to consider include:

- Rhinos are still poached, despite dehorning (Carte Blanche, 11 March 2012, and the heartbreaking story of Phila, who was attacked while in rehabilitation from a poaching incident).
- A number of conservation agencies and private reserves have dehorned rhinos, but anti-poaching initiatives and surveillance are still needed. This means that poaching still remains a major threat to rhino populations (Raoul du Toit (2012) in *Africa Geographic*, April 2012).
- The South African government allowed rhinos to be exported to China (in contravention of CITES regulations). China used these animals for farming purposes (in contravention of CITES regulations). With their advanced technological skills and knowledge of producing products for which large demand exist, China could have established well-producing herds themselves. If

Asian countries started these farming activities and found them to be successful, why then does the poaching continue?

- The Chinese government has entered the African continent at an alarming rate, and their exploitation of the natural resources of the continent is well known. If harvested horn is a product in demand, they could have established well-run factory farms in Africa to meet the Chinese demand.
- With their pharmaceutical skills and expertise specifically regarding TCM, and the many Internet retailers advertising rhino products, could the Chinese not have developed substitute products? (According to Robinson (2009), substitute products have been used since 1993). Milliken (2012) in an article entitled *Final Destination*, published in *Africa Geographic*, April 2012, states that there is a strong market for fake and substitute products.

If harvested horn is in demand, the Chinese government could easily have established farms and farmed rhinos for their horn or developed substitute products for horn. Recent media reports on this subject indicate that the Chinese government found this not to be successful.

A number of media reports indicate that wild animal products are more in demand than farmed products.

The conclusion that can therefore be reached is that farmed products from South Africa is not the actual product for which there is a demand.

### **6.5.3 Fresh rhino horn as a product in demand**

As is well known, the current product in demand is RHINO HORN from poached rhinos. A strong argument can therefore be made from the product analysis that South Africa has to protect live rhinos with intact horns in their natural habitats, as this is the current product in demand.

**To open the trade will thus not curb or reduce the poaching**, as the main product in demand is live rhinos, but it will lead to an escalation in poaching as the demand will explode (see section 6.6).

In view of the above factors, ALL AVAILABLE RESOURCES should be urgently deployed to protect live rhinos and at the same time the massive ecosystems they support.

## **6.6 The supply and demand theory (flooding the market) and its practical application**

### **6.6.1 Introduction**

Although demand is strongly linked to Asian countries, and specifically to stockpiling of horn in China and Vietnam, the supplying or exporting country assists in the distribution of the product. Because South Africa is the custodian of more than 90% of the world's remaining rhino, (and therefore is the exporting country) well-operating syndicates have to be involved in the supply chain. Proof of this is evident from numerous arrests of South African citizens for poaching activities. Borchart (2012) and the researchers mentioned above strongly support this view.

A complicating matter in this regard is the fact that although there is a heavy demand by Asian countries, supply chains exist in Europe, the USA and elsewhere. Evidence of this includes recent arrests and busts of illegal traders in these countries.

This leads to the conclusion that international trade in rhino horn exists (the trade is not exclusive to Asian markets). The supply comes from syndicates solidly established in South Africa, and South Africans are equally as involved as citizens from other countries.

Who would then be benefiting? Precisely those who are advocating so strongly for open trade. The reason can only be financial gain for those who are already gaining exponentially from exporting the product into the international markets. This view is not new and is often used in anti trade discussions. Direct links have been found, and media reports link farmers to laundering: Rhishja Cota-Larson, 2012; SanWild Wildlife Sanctuary, 2012; Selomi Maritz, 2012 (Saving Private Rhino), to name a few.

Specifically relevant in this regard is the article *Legalised Trade is a Cover for Laundering*, by M. Rice (Executive Director of the Environmental Investigation Agency), published on 09/03/2012, in which Mr. John Hume is directly implicated.

A factor of concern is the increasing number of South African citizens arrested for their involvement, and media reports link more professionals and specifically wildlife veterinarians to providing assistance in poaching activities ([www.rhinoconservation.org](http://www.rhinoconservation.org) 2012/03/09). Extensive investigation has been done by [www.savingRHINOS.org](http://www.savingRHINOS.org) on a variety of wildlife veterinarians, transporters, safari operators and workers, who have been directly linked to poaching activities but are still actively involved in the industry. [www.planetsave.com](http://www.planetsave.com) supports this view in research documents, which are openly available on public websites. Together with this, Lawrence (2012) refers directly to a 'Boere Mafia'. The members are rich South African white men who know exactly where rhinos are and how to get them.

With these facts as background, it should be clear that no grounds for legalised trade can be considered, yet pro-trade advocates often focus their arguments squarely on the concept of flooding the market, which relates closely to the economic theory of supply and demand.

Supply and demand are, according to [www.investopedia.com](http://www.investopedia.com) , two of the basic laws on which all economic activity is based.

The research team therefore decided to include the application of these economic laws to explain the concepts and to apply the theory in practice to the rhino situation. This will assist South African citizens to understand why the trade will never be able to reduce poaching, but will ultimately lead to an explosion in demand, which will in turn lead to an explosion in poaching-related activities and the extinction of the rhino in the wild. This would result in devastating consequences for the tourism industry, which needs protection as a growing sector of the South African economy.

The supply and demand theories are based on the interaction between two opposing forces (the application of these theories can never be viewed in isolation, because interaction between the forces is linked by cause and effect to each other ([www.investopedia.com](http://www.investopedia.com))). Because so many factors influence these decisions, it is easier to represent this graphically to show visually the influence of these factors on each other.

This model deals with two groups of people, buyers and sellers, and how these groups interact. According to [www.netmba.com](http://www.netmba.com), buyers bid against each other, thereby **raise the demand**, and sellers bid against each other, thereby **lowering the price**. This will result in a cheaper price, but more consumers will be using the product. By increasing demand, more will be sold and the more profitable the trader will be. The purpose is to expose the product to new markets and persuade more consumers to use the product. By supplying more, profits are increased.

It is crucial to mention that the theories of supply and demand are ONLY relevant when the only variables are supply and demand, expressed in price and quantity. It therefore represents NORMAL market forces. The influence of the different variables involved in the rhino trade and specifically the controversial illegal trade in endangered species products, renders these theories irrelevant.

In any discussion of the topic it needs to be remembered that the purpose of flooding the market or a sale in every-day terms is to GAIN MARKET SHARE. It is a way of EXPOSING the product to an extended consumer base. This is NOT what needs to be done to REDUCE demand or address poaching.

### 6.6.2 Law of demand

The law of demand states:

The higher the price, the fewer consumers can afford the product. Demand refers to 'the willingness and ability to buy a product' (refer to the diagram in Figure 1).

A concerning factor in this regard is that specifically those who want to enter the trade have never before determined the exact demand or market size. Conflicting evidence in this regard was found. Eustace (2012) indicates merely 300 800 people, 't Sas-Rolfes (2012) indicates a 'sophisticated niche market' and Els (2011) indicates 'millions of people'.

As was explained in previous sections, the demand exists globally, and crucial questions remain: how does one determine this demand, how can it be satisfied and how will it be regulated? Will trade agreements or MoUs with Asian governments be enough to curb the demand? How will supply chains in Europe and the USA be regulated?

If traders, suppliers or consumers were to be excluded from shipments or stock, they will merely resort to illegal supply chains again, which will render the product at cheaper prices (due to the low cost involved in obtaining the illegal product), which will therefore be more profitable to the trader. This fact is explained in financial accounting terms by Scott (2011), supported by a number of investigation agencies (as mentioned above), and it remains the major risk in the debate. (Refer to section 6.6 – Risk Analysis).

In addition, demand cannot be regulated, as proposed by pro-trade supporters, because illegal supply and demand will continue to exist. The established illegal supply chains will merely continue to operate, thus poaching will escalate to satisfy the demand of consumers who have been introduced to the market because of the lowered price. This notion is strongly supported by research literature (Bulte & Damania, 2005; Scott, 2011; Robinson, 2009; Milliken, 2011).

To emphasise the confusion surrounding demand, an investigation into TCM (as a traditional users of rhino horn) was included and evidence was found that TCM is strongly opposed to the use of animal parts, specifically those of endangered species (Robinson, 2009). on the following points should be noted where TCM is concerned:

- TCM emphasises the interaction of body, mind and spirit and focuses on the patient's relationship with the environment and the natural world.
- TCM believes in a holistic balance of 'yin' and 'yang' – any imbalance will lead to disease.
- TCM does not oppose Western medical practices, but COMPLEMENTS it and EMBRACES East-West concepts of healing and health.
- The focus is on herbal and botanical substances: animal ingredients in TCM products amount to less than 10%.

Robinson strongly argues that by legalising the trade, NEW markets are opened as consumers are ENCOURAGED to try something they had previously ignored, as is clearly indicated in the diagram in Figure 1. This increases constant demand and causes black markets to flourish and POACHING TO EXPAND. Banning the use WITHOUT public education initiatives encourages a black market as people are willing to take a higher risk at higher prices. This notion is strongly supported by Scott (2011) and Bulte & Damania (2005), who refer to the effect of outrage and stigma.

It is thus crucial that the risks associated with and linked to poaching as a practice need to be much higher. Eloff (2011), emphasises the low risks for poachers on the ground, resulting in South Africa being the prime 'poaching' destination.

Robinson argues that claims of sustainable practices (farming) lack credibility, as humans have the responsibility to ensure ecological co-existence with the natural world. Cruel and inhumane treatment (dehorning) under the guise of sustainable use (as indicated by pro-trade proponents, specifically Els (2011)) does not legitimise the infliction of pain and suffering. This view is strongly supported by the 'strong school' of sustainable development and the many anti-trade proponents.

The strong stand of TCM practitioners against animal cruelty is clear in the following quotes:

- Dr Ho Ka Cheong (President of the Herbalist Association of Hong Kong): "rhino horn can simply, cheaply and effectively be replaced by aspirin."
- Scarlet Pong (President of the Practicing Pharmacists Association): "Many practitioners do NOT stock or use products from endangered species because they are morally offensive and there are plenty of perfectly acceptable herbal alternatives."
- Guangdong Provincial Hospital of TCM in China uses a combination of TCM and Western medicines and is seen as the leading regional and national medical, educational, research, treatment and surgery facility. Although they use animal parts, the use is strictly controlled, and they use buffalo horn to replace rhino horn and cow bone to replace tiger bone.
- As early as 1993 a list of substitute products for rhino horn was published and is in use.
- To endorse this stand by TCM, practitioners made a submission to CITES in a joint statement: "In recognition of the conservation and animal welfare concerns regarding endangered species, this declaration shows support for replacing all wild animals with non-endangered herbal substitutes in TCM." This submission was signed by the leading TCM practitioners in the world on 1 June 1999.

From this discussion it can be concluded that TCM practitioners strongly oppose the use of animal products and advocate the non-use of endangered species in their medical practices. They find the use of rhino horn offensive and not in line with balances with the natural world. They embrace East-West practices and take a strong stand against any animal cruelty as the natural world, the human spirit and the body should function in harmony to ensure perfect balance between 'yin' and 'yang'.

Milliken (2012) supports this view and emphasises a 'dormant' market and not the demand that drives the illegal trade. He refers specifically to reduced consumption after China banned rhino products in 1993. However, he refers to the difficult process of regulating the market, and therefore, the demand. Steve Trent, President of WildAid (an advocacy group against the use of wildlife products in China) agrees with Milliken and believes the current market in China is relatively small, but warns: "It has huge potential to grow."

The most recent report from the International Fund for Animal Welfare (IFAW) ([www.parliament.uk.com](http://www.parliament.uk.com) session 2010 - 13) focuses on the fact that the value of rhino horn is now exchanged for investment value rather than medical use. The closer the animal comes to extinction, the higher the investment value such as collectibles, antiques and artifacts. This is evident from the recent break-ins, theft and robberies at museums in Europe.

The question still remains: WHY DOES THE POACHING CONTINUE and where does the specific demand lie? As it is clear that demand cannot even be established, how will the market be regulated? The ivory trade and the 'blood diamond' trade serve as examples.

### **6.6.3 Law of supply**

The law of supply states: The higher the price, the higher the quantity the supplier wants to supply. This indicates an opposing force to the force of demand. The supplier attempts to sell his product at the highest possible price (which is exactly what is happening in the illegal trade at the moment) to be able to sell as much as possible at the highest possible price. The more he can sell at the high price, the more profitable the trade becomes.

Demand therefore means how much/many is desired by consumers, and supply means how much can the market offer or how much can be produced.

It is important once again to note that these theories and principles are based on production of products. The trader needs to make informed decisions as to his capacity to produce more should the demand increase. The purpose underlying this theory is thus to INCREASE DEMAND (see the increased demand as illustrated by the diagram in Figure 1).

The question remains: CAN South Africa meet this explosion in demand with the current supply?

From this discussion, the following problems need to be addressed:

- To open the trade, a balance will need to be found between the legal and illegal markets. Scott (2011) maintains that the consumer will merely pay the lowest price, regardless of the legality or otherwise. It must be remembered that supply chains in the illegal market are strong and well operated, whereas NO legal supply should exist.

Therefore the problem of laundering legal supply into the illegal market becomes a major concern. This is not only relevant to private owners, as government officials and rangers are also implicated, which means stockpiled horn from secure government agencies are also under threat.

- Why would the consumer enter the legal trade if he can obtain the product at a lower price via existing illegal supply chains?
- At the same time, a massive explosion in demand (as is illustrated in Figure 1 and as the literature indicates) will be created by lowering the price.
- In this regard, the immoral notion of entering a product with NO medicinal value in international markets, together with the global outcry (including in 'user' countries) that rhino horn is not medicine, will have a negative effect on the global image of South Africa. This is specifically relevant in view of tourism marketing, which focuses on South Africa being the number one wildlife destination, and the global achievements of the tourism industry regarding Cape Town, Table Mountain and the BIG 5.
- In addition to this, as no supply is certain, and few private owners are in favour of the trade, how will the current supply of horn be regulated? This is specifically relevant in view of the problems mentioned in previous sections, and the fact that demand will grow exponentially.

Some sources claim that there are  $\pm 20\,000$  rhinos still alive in South Africa, but it is obvious that with the current rate of poaching, this is unlikely. Specialists in the field, like Peter Milton, Director of SPOTS, an organisation devoted to the protection of endangered species, estimates that the remaining populations are much lower (personal interview on 14 March 2012). The key question remains: Will South Africa be able to supply the unknown demand? Can it meet the demand?

### **6.6.3 Equilibrium**

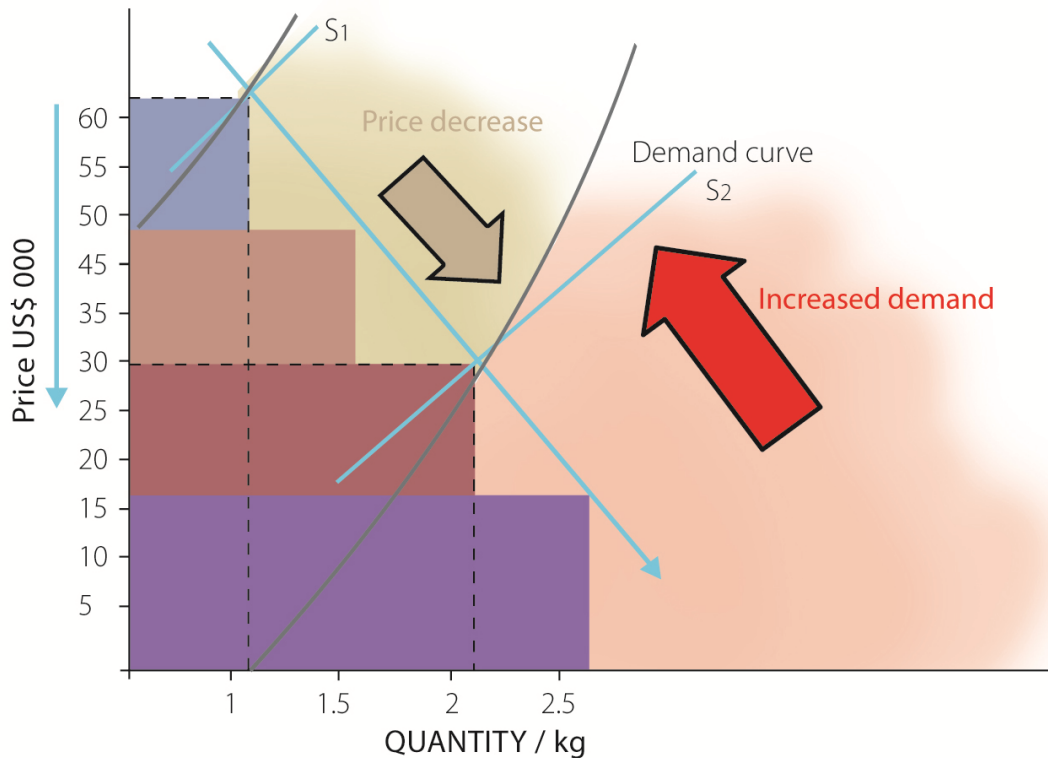
The equilibrium price is the price that represents the exact balance between the supply (what is available to the market) and the demand (how many consumers would be prepared to buy the product at a specific price). The trader has to determine exactly what the demand at a specific price is, to determine what the quantity is that he is able to provide. Equilibrium represents exact points on the graphical presentation, while taking price and quantity into consideration.

This can again not be manipulated by a CSO, as specific (illegal) demand will continue to exist, regardless of legal or illegal trade. This will result in an escalation of poaching, because the demand will escalate due to more consumers being exposed to the product, and only a limited supply will be available.

The diagram in Figure 1 is a graphical representation of the expected effect of any trade (irrespective of levels of regulation).



## Supply and demand: rhino horn



**Figure 1: Diagram of supply and demand of rhino horn**

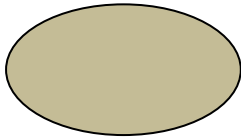
### **Legend and discussion of diagram in Figure 1**



The blue column (S1) indicates the current price at US\$ 60 000. This is merely a hypothetical price, as the actual price varies according to the country and the specific trader. It is well known that the price is higher than that of gold, and can therefore range between US\$52 000 and US\$65 000. As is illustrated, few consumers can afford the product at a high price (see section 6.6.2 – Law of Demand). A small quantity is therefore required at this high price (only 1 kg). The supply line S1 indicates the quantity needed at this high price. Because the product is very expensive, few consumers can afford it.



The brown area indicates the situation when the price is hypothetically reduced to US\$30 000. As can be seen from the diagram, the quantity needed (at that price) is 2 kg. The immediate effect will be that more consumers can now afford the product (a ‘sale’ in everyday terms). This is the danger of opening the possibility of trade in future as indicated in the literature (see sections 6.6.2 and 6.6.3).



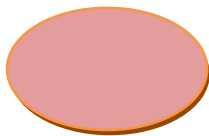
The grey area between the demand curves (S1 and S2) indicates increased demand at the reduced price. Note that the price can again rise above the original high price as demand escalates (S2) and more consumers are exposed to the product.



The blue arrows indicate the downward movement of the price and how the supply and demand switches when a reduced price is introduced. The reduced price will allow more consumers to be introduced to the product. At S2, the product will enter the market at US\$30 000 (again hypothetical), as no indication exists at what price the product will actually enter the market.



The red arrow indicates the 'push force' from the increased number of consumers exposed to the product by lowering the price (see section 6.6.3 – Law of Demand).



The shaded pink area indicates the DANGER of reducing the price to US\$30 000. This illustrates a possible explosion in demand by lowering the price. This clearly indicates that no supply in rhino horn can meet this possible explosion in demand.

The diagram indicates the danger of introducing the product at a reduced price. This line of reasoning is relevant no matter what the market price will be and therefore proves the arguments of the investigation agencies mentioned. The emergence of so-called 'rhino-economics' or 'economics in limited trade' are absolutely irrelevant, because the supply/demand theory is a universal theory in any economic debate. This notion is strongly supported by the research literature.

It is extremely important to emphasise the fact that this theory is ONLY relevant when NORMAL and LEGAL market forces are evident. The influence of illegal supply and demand renders the supply/demand theory inapplicable.

From the supply/demand analysis it should be clear that:

- No argument can be made for flooding the market, as no indications exist as to what the demand or the supply is. The diagram indicates the danger of the explosion in demand.
- No indication exists that a regulated trade can be negotiated as no proof exists that it would stop the poaching. This is because consumers will buy the product at the cheapest possible

price, which would still be lower than the 'legal price'. It is therefore crucial that ALL possibilities in this regard should immediately be halted. This will be the ONLY way in which stockpiling internally and in 'user countries' can be stopped.

- The cost of external threats to South Africa are not accounted for. (see section 6.7.2).
- The damage to the tourism industry cannot be determined or estimated.
- The demand created by the 'increased supply' cannot be determined.
- The ability of suppliers to launder illegal products into legal trade systems cannot be established (Scott, 2011; reports by TRAFFIC).

This economic analysis was done independently of any other study previously undertaken, as the problem is unique. However, the same results were found as Bulte & Damania (2006) found in their economic analysis on wildlife farming and conservation, and as Scott (2011) found in a detailed accounting study.

It is therefore clear that no trade can be considered on the basis of the supply/demand theory, as an analysis in this regard indicated an explosion in demand as predicted by anti-trade advocates.

Through this graphical representation and application of the principle of flooding the market, evidence is provided that no reason exists why lowering the price would reduce poaching, and it can therefore be discarded as a possible solution to the problem. It indicates the contrary, namely that poaching could substantially increase because of the exposure of the 'product' to a much larger consumer base. This would lead to an increased demand, which is exactly the opposite of what the objective should be: to reduce the use of the product.

## **6.7 Risk analysis**

### **6.7.1 Introduction**

The individual 'farmer' needs to consider the risks prior to entering 'the trade'. The rhino can be viewed as a 'canopy species' or 'flagship species', which indicates its contribution to maintaining large ecosystems and many other plant and animal species.

Carrying capacity according to Du Toit et al. (2006) can be explained as the number of the species that the area can support through the least favourable season of the year. Limiting factors to carrying capacity are enough space and resources available, the specific climate of the location and the changing seasons. The authors conclude their argument by stating that "one factor overrides another, rhinos need plenty of space."

This view is supported by SANParks management system, which indicates rain use efficiency, ecosystem-based approaches and restrictions on the landscape as major influences on carrying capacity and ecosystems management within SANParks, and for specific management of the rhino population (DEA, 2011). This is emphasised by the response from a task team to determine the viability of dehorning rhino in government conservation areas. It was specifically recommended that this should not be done, as rhino need their horn for social interactions and mating, and to defend their territory (DEA).

The effects of dehorning is evident from the fact that the Chinese government and large pharmaceutical companies in China have been unsuccessful in farming rhino (BBC: Rhino Dehorning Cruelty, [www.youtube.com](http://www.youtube.com)).

It can therefore be argued that the space a rhino needs is a major concern to the prospective 'farmer'.

### **6.7.2 External risk factors (externalities) or risks to the South African government as representative of the citizens of South Africa**

The literature indicates a variety of external risks to be considered in decision-making processes in this regard (Scott, 2011; Barbier, 2005; Bulte & Van Kooten, 1999; Van der Merwe & Saayman, 2003; Bulte & Damania, 2005; Deere, 2011; Milledge, 2007; Milliken, 2009-2012).

All these researchers are experts in their respective fields. The resource material varies from post-graduate research in accounting, illegal wildlife trade experts (TRAFFIC), the IUCN, conservation experts in large government agencies (Amboseli National Park in Kenya) and economic and tourism experts.

It is important to mention that these risks are referred to and repeated throughout this study, as their relevance relates specifically to each sub-section addressed, and they are therefore crucial in this debate. The risks are as follows:

- Because of the different levels in the poaching supply chain, individuals from all levels of society, irrespective of race, income level or education are involved in poaching activities. Proof of this lies in the fact that arrests are made irrespective of occupation. Wildlife veterinarians, farmers, high-profile businessmen, rangers, high-level government officials and local, Asian and African (from other African countries) citizens are involved.

**The risk:** It is not only the low-income poacher who benefits and therefore might exploit regulatory loopholes, but the higher up in the supply chain, the easier it becomes to exploit the system. High-profile and well-educated individuals are specifically implicated. In this regard again, reference should be made to ranchers and hunters, who have already been linked to laundering and supplying the illegal supply chains.

- The poaching risks are very low, especially in South Africa (50/50 SABC and Eloff, 2011). This indicates that poachers would prefer to poach in South Africa.

**The risk:** Why would they stop if the ban were lifted?

- It is well known that poachers are involved in illegal trade in different species. How would opening a trade affect the trade in other endangered species? It is also well known that rhino horn, ivory, drug and diamond smuggling are closely linked, so what will the effect be?

**The risk:** Not only will the poaching of rhinos not stop, but it could lead to an explosion in trade with other illegal fauna and flora, for example cycads and ivory, and in drug smuggling or even human trafficking.

- Natural resource conversion: Capital is divided into three forms, namely, human capital, physical capital and natural capital. The conversion of natural capital contributes to long-term economic activity and welfare of the state (citizens). This is specifically relevant to poorer economies where livelihoods depend on natural asset conversion and where the tourism industry provides valuable economic benefits.

**The risk:** How will this affect the 'overflow activities' specifically to poor communities in rural areas, with specific relevance to the tourism industry, and bearing in mind that hunting/ranching does not contribute significantly to the GDP or to conservation as such?

- Environmental sustainability: Sustainable development is the optimal management of resources to maximise benefits of economic development while maintaining the quality of natural resources.

**The risk:** What will the effect on proper ecosystem management and conservation efforts be, as agriculture, specifically wildlife ranching, already covers more than 16.8% (NAMC, 2006) of the land area of the country, yet do not contribute significantly to the GDP? Wildlife ranching does not contribute to food security as do other agricultural activities, and does little or nothing for poverty alleviation in rural areas (see section 7.5).

- Tourism trades on capital: The tourism industry counters capital trade between ranching/hunting as it contributes largely to the national GDP and is a definite growing and income-generating industry. This industry creates desperately needed employment and skills development, specifically in rural communities.

**The risk:** A definite effect on the tourism industry could be expected as South Africa would be perceived as 'not caring for endangered species', while the global trend is towards sustainable development, protection of natural ecosystems and decoupling of economic growth with natural resources (Namibia currently has to deal with the threat of a tourist boycott due to the controversial seal hunt).

- The conversion from legal trade to illegal trade is easy: The only current market is the illegal market. Why would well-operating supply chains enter the legal market if well-established illegal supply exists within the country?

**The risk:** The amount of stockpiled horn in the country cannot be assessed, as much is not declared. Why would traders then trade legally if they can follow 'normal routes' to access illegal products?

- CSO: Will it be viable in light of the fact that the illegal trade is too big? How will the syndication in the country be regulated? How will regulation be assured in the user countries? This is specifically relevant to the fact that demand cannot be determined (as it is a global market and not only an Asian market).

**The risk:** How will the CSO be regulated and what will the effect on the poaching be? Who will control the quota allocation? What is the possibility of corruption within the system, especially in light of under-resourced and under-qualified employees? What assurance would be given that horn traded will in fact be from 'natural mortalities'? Will recovered

horn from poached rhinos be considered as 'natural mortalities'? If so, why would the poaching stop? If not, how will it be regulated?

- Price: What price would represent a viable option to counter poaching?

**The risk:** The legal price would have to be lower than the illegal price for consumers to exchange illegal products for legal products. Would it be viable to trade?

- Ethical concerns: How can any country justify the expansion of markets with a product that holds no medicinal value? South Africa might face a global onslaught in terms of ethical business practices, and the negative effects might be enormous.

**The risk:** How would South Africa counter the international outcry with extensive awareness campaigns, celebrity support and pro-animal activism, not only in 'user' countries, but in industrialised areas such as Europe and the USA? All these campaigns are focused on one message: RHINO HORN IS NOT MEDICINE!

The external risk factors are severe. As these risks are associated with 'the trade', which can affect South Africa's international image, they can contribute to increased poaching and can by NO MEANS ensure that poaching will stop. The risks outweigh the small advantage by far.

### **6.7.3 Risks associated with the production of rhino (risks associated with the social behaviour of the rhino)**

The risks in this case are the following:

- Rhinos support large ecosystems and therefore need ample space in natural environments.
- As animals become crowded together, competition, disease and predation affects survival (Du Toit et al., 2006)
- According to Trendler, a specialist in rhino rehabilitation and re-introduction into natural habitats with a strong focus on rhino 'orphanages', no evidence exists that rhinos do not need their horns, as they need it within their social groups.
- Rhinos cannot be farmed like other 'herd' herbivores, as they are not herd animals and rather live in close family groups or as solitary animals.
- According to Enviropedia.com, Trendler, K., Stewart, M. (SanWild, Rehabilitation Centre):
  - Rhinos become aggressive when stressed.
  - When a mother is with her calf, she can charge at a speed of up to 56 kph. This causes an additional safety risk for farmers and workers.
  - Rhinos are territorial and defend their territory, another reason why they need their horns.
  - Mating is a dangerous process, and timing crucial. Males become even more aggressive during the mating process. How will this be accommodated in farming?
  - During the first year of life, the calf is dependent on mother's milk and needs to stay with the mother for at least four or five years. How will this be accommodated

in the production process, and at what age will the calves be removed from the cows?

With these risk factors in mind, how will the farmer cope with the specific behavioural and social aspects, and how big would the enclosures have to be? How many rhinos could be farmed economically? Or will the rhinos merely be forced into enclosed spaces, and hurt and injured animals removed from the herd, the horns harvested and then the animals discarded, or put out of their misery and their body parts sold (as is being done in the canned lion industry) to ensure enough space for the breeding to continue? How will this contribute to conservation?

These risk factors are specifically relevant in view of the fact that user countries could have established breeding programmes, but farmed products are viewed as less effective than 'wild' products. The question then is: why will it work for South Africa if it does not work for user countries?

#### **6.7.4 Financial risks**

The following are the financial risks:

- Saayman (2002) points out the importance of profit and loss analysis, which deals with the income the business will generate by taking all costs (fixed and overhead) into consideration in determining the price and the profit.
- Van Rensburg (2005) refers to aspects to consider when investigations into possible market penetration are done. These include: market size and growth possibilities, profitability, cost structures, distribution channels, key success factors and sufficient resources.
- A careful analysis of Porter's 5 factor theory needs to be done, which deals with substitute products, the bargaining power of competitors within the product market, competition among existing suppliers, the bargaining power of customers and the power of new entrants into the market (Saayman, 2002; Van Rensburg, 2005). These factors were all discussed in section 6.6 and the unknown dangers explained.
- By merely acknowledging the above financial risks, it can be concluded that none are relevant in reducing demand, but all are relevant in increasing demand and growing markets.

As the proposed price is 'unknown', none of the above questions can be answered and the proposed risks to the farmer or 'trader' therefore outweigh any possible advantages. The costs involved in harvesting the horn also need careful consideration

Further risks are as follows:

- The process of tranquilising is expensive, as 20 – 30 people, a registered veterinarian and trained practitioners are required. (Specialists in all the relevant fields are already implicated in the illegal trade. How will this be regulated to avoid additional illegal involvement?)
- A number of permits are required. In view of the current corruption, how will regulation be ensured? What will the financial cost be to the farmer? Will the 'farmer'

be able to cover these costs at a specific (unknown) price, or will the rhinos merely be forced into some 'vice grip', harvested and released into small enclosures? ([www.examinethis.com](http://www.examinethis.com), 2012). This practice has already been found to be unsuccessful by user countries.

- Illegal operators in the industry, corrupt officials and inefficiencies in permit allocation are already a problem. If it is legalised, how much more vulnerable would the farmer and the rhino be? Will this reduce poaching, or lead to escalation of the current problem?
- Although the price of the product is unknown (see section 6.6), it will not be as high as the current black market value (which is the value the pro-trade activists currently allocate to the product (Els, 2012)). How low will this price need to be to stop poaching and still be profitable to the farmer? Evidence in the literature and the supply/demand theory indicate that consumers will merely revert to the cheapest price, in other words, the easiest way of getting the product.

Once all the risks have been taken into consideration and the fact that the price is unknown, the supply and demand analysis indicates an explosion in demand. Role players are concerned about the problem of coordination, cooperation and political will to enforce legislation. Provincial conservation authorities are not equipped or skilled to follow procedures, there is the influence of corrupt officials and unethical professional hunters, no coordination between different levels of governments, relatively easy access to the product in demand (poached horn) and well-established illegal supply chains. In view of all this, can 'the trade' be considered viable?

Together with this, evidence exists of syndication in South Africa. These syndicates will become fully operational if any trade is allowed, and it will be easier to launder illegal stocks with legal horn. This view is supported by almost all relevant national and international agencies operating in the wildlife trade, and specifically illegal trade in endangered species. Prominent agencies include: the USFWS, which works directly with law enforcement investigation and arrests in the USA and whose Director is Dan Ashe; SPOTS, Director Peter Milton; IUCN, Simon Stuart; WWF; TRAFFIC, Tom Milliken; National Geographic; Animal Rights Africa, David Braun; to name a few.

The problems and ultimate risks associated with even considering the trade, besides the fact that NO economic viability is evident, are emphasised by the following:

- The ivory trade in Africa: The same problems associated with governance as in South Africa are relevant. Questions in this regard have even been raised against SANParks officials in South Africa (what happened to the R55 million of stockpiled ivory in 2009?), and unscrupulous officials hi-jacked the lifting of the trade ban. Yet the poaching continues and is escalating at an alarming rate.
- The canned lion trade: The demand can never be satisfied – despite the fact that a panel of experts determined norms and standards in this regard, of which one is a definite ban on captive breeding and specifically on hunting large predators bred in captivity (DEAT, 2006), the trade in canned hunting is flourishing. Recent media reports closely link the trade in lion bones to rhino poaching. This has reduced the king of the jungle to a mere product being 'bred for the bullet'. How is the species being protected, and to what extent can reference be made to conservation?



- The diamond industry: Although a very strictly controlled trade system is in place, which is monopolised by De Beers Diamonds, the trade in blood diamonds is stronger than ever.

Will lifting the ban stop the poaching? Definitely not, in view of the chaos that is evident in government conservation agencies, the mess in the hunting industry (see *Hunting in South Africa: A Bloody Mess*, ARA, 2010), and the devastation caused by people who should be protecting natural heritages, which include wildlife veterinarians, safari operators, farmers, professional hunters, outfitters, taxidermists, wildlife guards and police officials. The poaching will NOT be stopped while the ONLY people who can benefit from the trade are precisely those who are currently fuelling the carnage and running the supply syndicates operating in the country.

As Braun (National Geographic (2011)) and Simon Stuart, IUCN (2011) summarise:

“...before trade can even be considered, cooperation between different authorities needs to be established, legal action needs to be much harsher, tools and available technologies are not yet utilized effectively, rhino stockpiles and the numbers of live rhinos need to be assessed, white rhinos cannot be hunted as trophies, as this only leads to unethical behavior from officials, hunters and others in the supply chain, and hunting permits need much improved management and monitoring...”

## 6.8 Conclusions

At the moment, normal market forces are clearly taking an economic asset management course. Private rhino owners in the tourism industry are desperately protecting their assets. Security is costing massive amounts of money, and any possible protection is pursued, such as horn treatment or training of guerrilla-type security forces as can be seen on many [www.youtube.com](http://www.youtube.com) presentations. The market value of rhinos is falling, but this only influences the traders, those who want to make money from the trade.

Prices are falling as could be expected, as breeding provides more stock, which makes the product available to a larger consumer base. This was already predicted in 2003 (Van der Merwe & Saayman, 2003). This is an advantage to the tourism industry, as secure herds can be filled up at lower prices. Private rhino owners who are not prepared to safeguard their populations, are selling stock off to more secure reserves. This is a normal supply/demand situation. Reserves cannot be overstocked given the current poaching, and if they are, they can relocate the rhino to other reserves.

From the previous points of discussion, and specifically the fact that poached rhino horn is the product in demand, it should be evident that no trade can be considered and any recommendations in this regard must include:

- An immediate moratorium on all hunting.
- An immediate moratorium on trade in any rhino products, dead or alive.
- Should any bans be addressed, the white rhino needs to be up-listed to CITES Appendix I: Critically Endangered Species, and specific action plans put in place to safeguard existing populations.

- SANParks and government conservation agencies should be declared disaster areas, as the rhino as part of the BIG 5 export product is crucial for the growth of the tourism Industry. This will send a positive message to the international community, as it will indicate that South Africa cares, not only for endangered species, but is also concerned about ecosystem protection. This will enable additional funding for desperately needed security. The international community will respect this decision and it will enforce the positive effects as indicated above.
- Any discussion on opening the trade should immediately be halted with the utmost urgency, as it is clear that supply syndicates in the country are stockpiling by poaching less secure populations in government reserves in preparation for the moment any bans are lifted. Secure populations are less of a threat, and reserves should urgently be assisted with security costs or security initiatives.
- All possible resources should immediately be utilised and reserves offering assistance should be allowed to help where possible, as they already have strategies in place which might be beneficial to government agencies.
- South African citizens, specifically neighbouring communities of reserves, should be offered incentives (as per CITES recommendations) and be involved in awareness and educational campaigns. These campaigns can focus on rhino conservation, but other endangered wildlife species can also be addressed.

A focused, well-organised, well-skilled and competent task team with the expertise should immediately be appointed to strategically focus on the key issue: SAVE THE EXISTING RHINO!, as clearly suggested by the SADC Rhino Management Group (2006) and different concerned individuals and groups earlier this year in presentations to the PPC in parliament.

## Chapter 7 The tourism industry

### 7.1 Introduction

The South African tourism industry lies in the centre of the chaos of industries advocating the pro-trade stand, the 'bloody mess' in the hunting industry, corrupt farmers/ranchers who buy and kill rhinos for financial gain, corrupt and under-skilled government officials, lack of coordination between levels of government, no political will to enforce strategies, international trade agreements (CITIES reports), recommendations from task and specialist teams and the no-care attitude of custodians of biodiversity, conservation and our natural heritage (SANParks) on behalf of South African citizens.

Saayman, (2002) define tourism as: *The total experience that originates from the interaction between tourists, job providers, government systems and communities in the process of attracting, entertaining, transporting and accommodating tourists.*

This definition indicates that tourism includes the total experience the individual experiences when exploring new or known territories. For the role players in the industry, this amounts to a mammoth task. With the recent global economic crises, to grow such a complicated market requires hard and dedicated work from everyone involved.

It is therefore relevant to focus on the economic sector representing the no-trade stand. Instead of 'killing and selling' for money, they choose to protect and conserve, to provide and empower. In this sector, the main focus is on attracting local and international tourists to the African bush (refer to strong sustainability in Scott (2011))

The dedication, hard work and love of nature is so strong and successful, and the strategies so well planned and executed that the aim to grow the contribution to the GDP from R190 billion in 2009 to R499 billion in 2020 is well within reach. This will result in 225 000 new jobs and an increase in the number of foreign tourists to 15 million. Together with this, focus will be placed on translation of these arrivals into broader economic benefits to local communities ([www.lol.co.za/business\\_news](http://www.lol.co.za/business_news) 2011/03).

To achieve these objectives, the tourism industry needs the rhino with their horns intact together with the other members of the BIG 5 in their natural habitats. The relevance and value of the rhino to tourism cannot be underestimated. This value does not lie in trade of animal products or dead rhinos, but in their existence in the wild. Eighty per cent of the tourism industry is dependent on natural ecosystems and wildlife. Thousands of local jobs are created, skills developed, infrastructure paid for (specifically in the more rural areas of South Africa) and growth in the industry established. The main tourist attraction and ultimate export product of the tourism industry is the African bush and the presence of the BIG 5 in natural surroundings.

A number of tourism-related websites were consulted during this investigation, and they indicated nature (Western Cape (specifically Table Mountain)) and wildlife experiences as dominant contributors (80%) to the industry. It can therefore be assumed that these two export products are the main attractions for international, regional and local tourists to South Africa. If further deductions are made, these two products contribute as much as 7% (80% of the contribution of the

tourism industry) to the South African economy. The tourism industry contributes 8.4% to the national GDP.

When conversion of capital (natural resources) is taken into account in the growth of the economy, the assumption can be made that the rhino in its natural state contributes largely to the recovery and growth of the national economy.

The conclusion can thus be made that the rhino does not need to 'pay to stay' (pro-trade), but is already 'paying' merely by existing in the wild (the anti-trade stand). It therefore needs protection (in natural environments) as a major source of income for the South African economy.

## **7.2 The contribution of the tourism industry to the national GDP of South Africa**

As the global economy is currently in the recovery phase after the global recession and its influence on global economies and individual consumers is experienced on a daily basis, it is crucial for national economies to protect their growth sectors. The tourism industry has shown exponential growth compared to other national economic sectors. Growth is well above the global norm (National Department of Tourism (NDT), 2010).

In 2008, the contribution of the tourism industry to the GDP was 8.4% and the NDT released a media statement declaring their action plans to grow the contribution to 9.4% or up to 10%.

The industry itself managed a growth rate of 10.2%, very close to the construction sector, which boasted a growth rate of 10.4%. It should be mentioned that the construction sector was supported by the preparations for the 2010 FIFA World Cup and large infrastructure developments such as the two largest power stations on the African continent ([www.tradingeconomics.com](http://www.tradingeconomics.com)). As recovery is slow, uneven distribution of wealth and income is still viewed as the biggest hampering factor towards economic growth. In South Africa, rural communities are particularly vulnerable.

Statistics indicate ([www.stats.gov.za](http://www.stats.gov.za)) that the catering and accommodation sector contributed 0.7% to the quarterly growth of 3.2% for the last quarter of 2011. As is evident from the paragraph above, the tourism industry relies heavily on this economic sector.

The official information website of South Africa ([www.sainfo.gov](http://www.sainfo.gov)) indicates a nominal GDP estimate at R2 700 billion for 2010. This means that the tourism industry contributed more than R226.8 billion (8.4%) to the national economy. In view of the fact that South Africa is marketed mainly as a wildlife destination, and the main tourist attractions are the BIG 5 (with specific relevance to the KNP, Hulled, Umfolozi and Ezemvelo) and the Western Cape (Table Mountain), it means that these attractions are contributing R181.4 billion (8% of the tourism revenue) to the GDP of South Africa. Growth strategies have been developed and strategic alliances established with all stakeholders in the industry to grow this contribution to a massive R499 billion in 2020.

To achieve this, the Minister of Tourism and a dedicated management team developed a first-ever National Tourism Sector Strategy (NTSS), a collective industry-wide effort to put South Africa firmly on a "new and ambitious growth trajectory for the future." (Media Statement: Ministry of Tourism, 21/05/2010).

The increased global focus on developing economies ([www.iol.co.za](http://www.iol.co.za)) as growing markets, with an increase to 43.4% of the global GDP in 2010, makes this a crucial sector of growth in the economy. There are strong indications of future growth in developing markets, which sets the tourism industry's aims well within reach. The focus in the industry will be on protecting traditional markets (specifically Europe) and recognising the long-term growth markets in developing countries.

Strategies have also been put in place to ensure that the industry is well on its way to building a 'green industry' with the focus on growth in the 'fair trade' concept and 'green certification' to meet global sustainable demands.

The tourism industry consists of a variety of contributing sectors and does not operate independently. All these sectors need to be included in analyses to determine the total contribution to the national GDP. The effect of 'overflow industries' and indirect employment opportunities need careful assessment.

### **7.3 The growth plan and strategic action towards reaching aims and objectives in tourism**

As early as 2004 the tourism industry started a well-focused strategy towards development, implementation and focus on growth in the industry. Specifically in preparation for the 2010 FIFA World Cup, the DNT annually re-aligned strategies, investigated global, regional and local trends, determined growth opportunities and addressed problems in the industry.

In September 2010, the NDT published an *Update on the Global Competitive Progress (GCP)*, which was initially done in 2004, which indicated the following:

- South Africa had the highest growth in spend by international visitors and outpaced the growth of competitive locations.
- South Africa boasts the highest number of tourists per direct employee (16 tourists). This indicates the hard work that needs to be done by employees in the sector, as other destinations have fewer tourists per employee.
- South Africa experienced a growth of 7.9% in tourist spend per employee and extracts more value per tourist than other developing countries like Brazil, Kenya and Thailand. These countries were identified during strategic planning sessions as key competitors to South Africa as a destination.
- Employees in the industry contribute substantially to the GDP of the country and reported growth of 10% between 2002 and 2008.
- The overall growth in GDP was 4.6% (2002-2008).
- Strengths in the industry were identified as brand recognition and above-average ratings for nature and wildlife. South Africa is viewed as adventurous, breathtaking and unique.

These findings are supported by research by the Pan African Research and Investment Services (2010) indicating continuous growth during 2010. This is specifically relevant in view of the global economic recession affecting global economies, and therefore the tourism industry as well.

According to [www.southafrica.info.co.za](http://www.southafrica.info.co.za), key focus areas in the tourism industry are business, culture, eco-tourism, paleo-tourism, adventure tourism and sport tourism. This website further

boasts South Africa's scenic beauty as an aspect of the fastest growing leisure, business and travel destination. These sectors are all, except for business and sport tourism, directly linked to natural resources or South Africa wildlife. It can be presumed that business and sport tourism will also include activities related to natural resource visits. For example, international tourists attending soccer matches during the FIFA World Cup in 2010 also included additional tourism activities between matches in their itineraries. International business visitors will also visit attractions close to business centres during their visits.

Although one can argue that consumptive wildlife tourism contributes to adventure tourism, no evidence of this notion could be found. Hunting might contribute to a minor extent to adventure tourism, but the growing global concern for the environment counters this, as is evident from recent social media petitions ([www.avaaz.com](http://www.avaaz.com)), which indicated a global outcry against trade in rhino horn. Within a few days, more than 600 000 signatures were added.

This notion is strongly supported by recent polls of the website of the African Conservation Foundation ([www.africanconservationfoundation.com](http://www.africanconservationfoundation.com)) and Africa Geographic (April, 2012). These polls addressed the question: What do you think needs to be done about the rhino crisis in South Africa? The response was overwhelming – massive education and awareness in Asia: 40%, intensify and improve anti-poaching initiatives and operations: 31.4%, anti-poaching horn treatment,) and micro-chipping: 22.9%, and legalising trade and dehorning of rhinos: only 2.9%.

Dwyer & Spurr (2010) support this argument and stress the concept of sustainable tourism. They emphasise the responsibility of government regarding the 'planet' (natural resources), the 'people' (specially rural communities) and establishing 'prosperity for all'. This concept is specifically relevant as tourism is closely related to natural environments and there are the many sectors in the economy that would benefit from a growing tourism industry.

A number of studies were found in the literature indicating the low economic value and sustainability of hunting and ranching to local economies. Lovelock (2008) indicates a specific threat to hunting itself, is 'simply the maintenance of sustainable practices'. Lovelock stresses "the role of wildlife management, where habitat protection is a critical aspect." He specifically refers to practices like the canned lion hunting industry. This is strongly supported by Deere (2011) and the IUCN (2011).

### **7.3.1 Overflow industries relevant to the tourism industry**

To determine the contribution that the tourism industry makes to the economy of South Africa, it was necessary to investigate the different economic sectors likely to benefit from growth in the industry.

In this regard the NDT, in cooperation with the Pan African Research and Investment Services, developed a detailed framework/model to benchmark the contribution of the tourism industry to the national GDP.

This analysis identified a number of relevant sectors that need quantifying in the GDP. Reference to quantification indicates direct and indirect impacts. Direct impacts are made on accommodation, transport and light industries. Indirect and secondary effects are less obvious and not easily quantifiable. Industries where these effects are evident include entertainment, finance, energy and

food production. This should leave no doubt that tourism affects many sectors in the economy. In addition to this, South Africa is seen as an exporter of tourist services, which means that tourists from other countries are spending more in South Africa than South Africans spend in other countries.

The importance of the tourism industry can therefore not be disregarded as a growth sector and its importance in the recovery phase of the global recession cannot be underestimated.

## **7.4 Consumptive and non-consumptive use of wildlife resources**

As a comparison between consumptive/ranching and non-consumptive/tourist use of wildlife is relevant to the aforementioned arguments, aspects of consumptive wildlife use must be included in this analysis.

A number of studies indicate a variety of reasons why consumptive use of wildlife is not currently viable and trade in endangered species can only contribute to poaching (Deere, 2011: Exploitation or conservation? Can the hunting tourism industry in Africa be sustainable?; IUCN, 2011: Big game hunting in Africa is economically useless; Van der Merwe & Saayman, 2003: Determining the economic value of game farm tourism (*KOEDOE*, 46 (2):103-112); Bulte & Damania, 2005: An economic assessment of wildlife farming and conservation (*Conservation Biology*, DOI,10, 1222-1235); Scott, 2011: Rhinoceros poaching: a discussion on the rhino trade; and Knapp, 2007: A review of the EU import policies for hunting trophies. *A TRAFFIC Europe Report for the EU Commission, Brussels, Belgium.*)

Previous sections of this document support the literature, which strongly indicates that consumptive use of wildlife does not contribute significantly to the tourism industry, the GDP of the national economy, employment opportunities, economic empowerment, entrepreneurial opportunities, training and skills development, and sustainable development (as a strong global trend). Little contribution is made towards conservation, risks associated with entering the trade are overwhelming, and the advantages are few and non-sustainable, except for the enrichment of a few individuals.

Other key problem areas mentioned in the literature are the following:

- The low recovery rate of poached horn in South Africa is a strong indication that stockpiling syndicates are operating within South Africa's borders. Special investigation agencies and authorities need additional powers to investigate and enforce legislation. Milledge (2007) specifically refers to the laundering of illegal stock into legal stock and stockpiling, and the abuse of hunting permits to launder legally obtained horn with illegal horn. The stress is placed on registered horn no longer being in the possession of the owner.
- The effective management of regulative processes and trade agreements.
- The non-regulation and lack of implementation of strategies by government agencies.
- Corruption.
- Higher costs (personal, financial, legal (sentencing) and social (stigma)) should be enforced on people found engaging in poaching activities – much longer sentences, the re-establishment of environmental courts and the 'no-bail – jail' principle.. If businessmen or other individuals are arrested, immediate and strong legal action must be taken.

- Regulation of associated and supply chain management. The suspension of professional or trade licences of professionals in the field, for example veterinarians, translocation professionals, outfitters, safari operators, PHs and wildlife workers (these professionals are directly linked to ranching/hunting). They should not be allowed to return to any nature-related occupations, as clear evidence exists that the illegal trade in rhino horn is closely related to other illegal activities or trade in other endangered wildlife (fauna and flora). Even drug and human trafficking is evident.
- Training and development of employees in the field with the focus on skills related to the love of nature.
- A definite strategy is needed for conservation fees for the consumptive use of wildlife. Such fees should be directly allocated to specific conservation initiatives or anti-poaching activities.
- Available international funding, strategies and awareness campaigns should be utilised and supported to address the poaching problem.
- Community involvement on a clear and transparent basis with direct input from community members (many examples and strategies are evident, e.g. in the Western Cape and Cape Nature, Honorary Game Rangers and the Bataleur Pilots).

The IUCN (2011) supports the above problem areas and refers specifically to the land area occupied (13.1%) and the small contribution to the GDP (0.04%) by big game hunting. Together with this, few South Africa citizens engage in hunting as an activity (0.004%) and evidence indicates a small contribution towards ecosystem management or community development/empowerment. Furthermore, this report indicates a mere 15 000 salaried jobs throughout the eight main hunting countries in Africa. Social empowerment is lacking and governance is sacrificed. Recommendations are for financing and maintenance of peripheral areas around conservation areas as a more sustainable option for hunting.

Further questions arise about the number of animals being killed, for example 640 elephants, 600 lions and 800 leopards per year. This does not include the 'illegal' hunts and other problems experienced in rhino hunts, as was explained in previous sections. These numbers are not sustainable and the canned lion hunting industry is clearly criticised, as no conservation is evident and animals are not returned to natural environments and ecosystems. This report strongly suggests more productive and eco-sensitive options for consumptive use of wildlife.

The studies mentioned above indicate that different experts and researchers in the field agree that desperate measures need to be taken to regulate and strategise the hunting and ranching industries. These problems and non-sustainable practices in South Africa result in various problems related to conservation. These are specifically relevant in the recent debate on the proposed hotel development in the KNP, which will allow open access to one of the country's major tourist attractions and conservation areas and will definitely contribute to the poaching problem.



## 7.5 Employment opportunities and involvement of marginalised communities

### 7.5.1 Introduction

In view of the extremely high unemployment rate in South Africa, it is crucial to create employment, or at least maintain and protect existing employment opportunities.

As 68% of all employment opportunities currently exist in the SMME sector, it is crucial that these should be maintained (RSG: Monitor, 13/03/2012). Many exist in the tourism industry, and the 'flow-over' economic activities in local communities, which are visible to all tourists, contribute to the development of rural areas and local trade..

As was established in previous sections of this document, ranching/hunting operations are closer to the agricultural sector as they involve the breeding of animals for financial gain. In this economic sector, problems have been identified and questions asked as to what extent agriculture contributes to employment opportunities and how sustainable these opportunities are. Specific reference can be made to economic empowerment above poverty levels, specifically in rural areas.

It is therefore relevant to discuss these opportunities in these sectors, as the South African government has identified job creation as a priority target for economic growth. The role the rhino plays in the respective economic sectors is important.

### 7.5.2 Employment in the tourism industry

The Pan African Research and Investment Services (2010) indicates the importance of the tourism industry in creating sustainable employment opportunities. Fewer than one overseas tourist or 17 local tourists are required to create one sustainable job. Therefore repeat visits are crucial and they are strongly influenced by previous experiences. This strongly suggests that positive experiences, such as game viewing and searching for and photographing the BIG 5 in the wild contribute to repeat visits to the country (Pan African Research and Investment Services, 2010).

It is specifically in this regard that the NTSS (National Tourism Sector Strategy) is relevant. This strategy involves all role players in the industry (more than 35 different sectors or departments). To implement the strategy, the ministry consulted inclusively with relevant parties to understand the impact that related growth can make on the South African economy (media statement, Friday, 21 May 2010, 10.30).

Some relevant matters include:

- A variety of cluster areas were identified to which specific attention will be given.
- It is a multifaceted industry, **but labour intensive**, therefore one of the main aims will be to create jobs in the industry.
- Prioritisation of coordination on different levels of government (in contrast to non-regulative and non-coordination practices in the hunting/ranching industries).
- Extensive marketing strategies in growth markets.
- A key focus area will be responsible and sustainable tourism.

- Transformation of the industry with the specific focus on SMME support and development of rural and township tourism.
- A key focus area will be the development of service excellence. The reason for this is to ensure return visits by tourists.
- To ensure a more cost-effective approach, the focus is on local or regional tourism and packages developed to ensure savings, specifically for the recovery phase of the global recession.

To focus on skills development, job creation and entrepreneurial enhancement in the industry, a specific strategy was aligned with the Tourism, Hospitality and Sport Education SETA to establish exactly what skills are needed in the industry and to ensure that training in this specific field takes place.

Evidence that the strategies are working can be found in recent media releases informing the public that targets are being reached, for example “German Tourist Arrival Figures up 9.9% at the end of November 2011” (press release: NDT, February 2012).

Proof of growth in the sector, as indicated by Pan African Research and Investment Services, resulted in an increase in revenue generated (by tourism) of 23.4% during 2008. This again is significant in view of the global recession, and the fact that the rand depreciated against all major currencies. This serves as proof that South Africa was better value for money to foreign tourists.

This report indicates that the contribution of tourism expenditure accounted for 21% of direct total employment in the tourism industry. The number of tourists required to create one job in the industry is as follow:

- Less than one foreign tourist (0.7) is needed to create one job.
- The number of African air tourists needed to create one job is 0.5.
- 5.8 African land tourists will create one job.
- 17.3 local tourists are needed to create one job.

The report concludes with employment figures in related industries, as mentioned in previous sections:

- Agricultural sector: Tourism contributed 7.5% to employment in the agricultural sector in 2008. This is an increase of 2.8% from 2007.
- Construction: Employment due to tourism in 2008 is estimated at 4.9%.
- Finance: Tourism contributed 4.8% to employment in the financial sector.
- Electricity: Tourism spending contributed significantly to employment creation in the electricity and water sector with a large contribution of 10.1%.
- Government services: Tourism spending contributed 5.7% to employment creation in government services during 2008.
- Personal services: Tourism spending in this sector rose steadily to 4.1% in 2008.
- Manufacturing: Tourism contributed about 3.2% to employment in this sector.
- Trade and accommodation: The contribution to this sector has been relatively high and stable. In 2008 it was 8.2%. Both foreign and domestic tourist spending have been the main drivers in the wholesale and retail sectors.

- Transport: Employment due to tourism in 2008 was estimated at 5.5%.

This illustrates the commitment of the tourism industry with clearly defined strategies and programmes in place to ensure growth in the economy. The focus on the creation of employment opportunities and entrepreneurship in the industry is crucial for the protection of current employment opportunities across the South Africa economy.

### **7.5.3 Employment opportunities in consumptive use of wildlife**

As was argued and evidence given in previous sections, ranching and hunting do not contribute significantly to the economy or the GDP of South Africa. A mere contribution of 0.04% (IUCN, 2011) with a massive land area allocation (13.1% for large game) is made towards the GDP of SA.

Ranching can rather be seen as an agricultural activity, as it involves breeding of animals for financial gain. In this regard the Department of Agriculture, Forestry and Fisheries published a report in 2010, which specifically focused on the contribution of the agricultural sector to employment in the South African economy.

From this detailed report it is evident that unemployment increased in this sector during the recession, specifically during the first quarter of 2010 (see section 7.3, which indicates continuous growth in the tourism industry). The unemployment figures in South Africa were rated as the highest globally. STATSSA predicts a further decline in employment in the formal agricultural sector for a number of reasons, which include mechanisation of farming equipment, unsustainable minimum wages and labour laws in agriculture.

The report indicated serious concerns in regard to the negative impacts expected on economic welfare, crime and social instability. Unemployment in the sector threatens to deepen the poverty crisis, specifically in rural areas. Poverty levels of households and individuals in this economic sector are rated as high as 54.2% and 67.7% respectively.

A further factor of concern is that employment in the agricultural sector cannot be viewed as effective to secure minimum living wages for farm workers. The wages are inadequate to lift wage-dependant rural households above socially acceptable deprivation thresholds, because the largest share is spent on food. This means that food security is sensitive to food price shocks (see the focus on job creation in the tourism sector, with specific reference to rural communities and township tourism).

It is also evident that farm workers earn the lowest wages in formal employment in any economic sector in South Africa. In this regard, the government has committed itself to job creation for the current Medium Term Strategy Framework (see strategies for skills development in the tourism sector). The conclusion was reached that farm workers earn meagre pay, which cannot keep starvation from the door. Many farmers or farm wives therefore partner with tourism initiatives to ensure additional revenue-earning activities for rural communities (for example, making beadwork, preserves or handicrafts to be sold at farm markets or tourist attractions).

Key problems identified in this regard were as the following:

- Total employment in the agricultural sector is only 5% of economically active workers. This economic sector covers a land area of 82%.
- The agricultural sector contributes less to employment than other sectors in the economy.
- Employment is unstable.
- Numerous indications of exploitation of workers are evident.
- No gender equality exists in this economic sector. During the first quarter of 2010, 19 000 woman were employed in the sector, whereas 69 000 male workers were employed. This indicates that there are few employment opportunities available in the sector.
- Only 20% of workers are skilled.

Specific relevance can be made to wildlife farming (ranching) as agricultural activity. According to the Sector Analysis as conducted by the AgriSETA (2010), agriculture as primary activity, contributes 2.3% to the GDP. Wildlife farming only contributes 0.1% to this small agricultural contribution.

From the above arguments it should be clear that the agricultural sector, despite a land area of 82%, contributes very little to employment opportunities and economic empowerment, specifically of rural areas. The contribution of wildlife farming, is minute.

This can by no means be compared to the possibilities for economic empowerment evident in the tourism industry. Gender equality, entrepreneurial opportunities, skills development and much higher average wages enable workers in the tourism industry to become active members of the South African economy.

As is evident from the discussion, hunting/ranching is not significant in growing the tourism industry. It must be noted that more than a million animals are hunted per year in South Africa (ARA, 2009 and 2010), and that 65 animal species can be commercially farmed and hunted. With the existing chaos in permit allocations ([www.phasa.co.za](http://www.phasa.co.za) and [www.proa.co.za](http://www.proa.co.za) ) for white rhinos, no economically viable reasons could be found as to why the products cannot be utilised in their natural environment to support the growth of the South African economy.

#### **7.5.4 A comparative analysis between different industries affected by the trade**

Table 1 shows a comparison of the relevant sectors.

**Table 1: A comparative analysis of different economic sectors in the SA economy in which the rhino plays a role**

	<b>Tourism/conservation</b>	<b>Hunting</b>	<b>Ranching</b>
<b>Land area occupied</b>	<p>Government conservation areas: 5.5%.</p> <p>The exact proportion of land allocated to different land usages by private owners could not be established. Private land is indicated as wildlife ranching, regardless of usage (consumptive/non-consumptive): 16.8% (NAMC, 2006).</p> <p>Primary agricultural activities occupy 82% of land area in SA.</p>		
<b>Contribution to GDP</b>	<p>Tourism: 8.4% or R226.8 b, of which R181.4 b can be allocated to wildlife/nature-related tourism activities.</p>	<p>Big game hunting: 0.04% (IUCN, 2011).</p>	<p>Agriculture as primary sector: 2.3% or R60.75 billion to the GDP (with 82% of the land area).</p> <p>Wildlife ranching occupies 16.8% land area and only makes a contribution of 0.1% to agriculture. This means 'ranching' only contributes R0.61 billion to the GDP. (Source: Sector Analysis, AgriSETA, June 2010)</p> <p>It is important to remember that a distinction cannot be made between tourist reserves (non-consumptive) and wildlife farming (breeding and hunting) in land area allocation.</p>
<b>Employment opportunities</b>	<p>Due to the number of industries benefiting from tourism (section 7.5.2),</p>	<p>Extremely limited. According to the IUCN (2011) merely</p>	<p>Extremely limited: Wildlife ranching: &lt;1%, as less than 1%</p>

<b>within the sector</b>	<p>exact figures are not available. Estimate: 7%.</p> <p>Note: Few employees and large contribution to GDP.</p>	<p>15 000 permanent employment opportunities in the eight largest hunting destinations in Africa.</p>	<p>of agricultural land area is allocated to this activity.</p> <p>(20% of agriculture)</p>
<b>Eco-system protection</b>	<p>Specifically evident on large reserves, as tourism activities need many species to offer to tourists, specifically regarding large herbivores like rhinos (section 6.7).</p>	<p>Hunting can be the biggest threat to itself due to excessive off-take and unethical hunting. Selection of trophy animals removes the biggest and strongest animals in gene pool. Transgressions in rhino hunting are specifically relevant. Deere (2011) and IUCN (2011)</p>	<p>Breeding of a few selected species restricts normal ecosystem development and protection.</p>
<b>Empowerment of rural communities</b>	<p>Well-developed strategies are evident (section 7.5.2) with the focus on entrepreneurial skills, job opportunities and township tourism.</p>	<p>Not evident. Hunting fees go directly to the hunter/farmer and no conservation fees are payable.</p> <p>The literature indicates more sustainable, responsible and eco-focused strategies need to be implemented.</p>	<p>Many problems are evident (section 7.5.3).</p> <p>Unstable employment, 'living wages' and extreme poverty levels are specifically relevant.</p>

Table 1 summarises the detailed discussion in previous sections of this document. It indicates the large contribution the rhino makes towards the tourism industry and the growth strategies evident in tourism. Consumptive use of the rhino or rhino 'farming' do not contribute significantly to the growth of the economy, economic empowerment or poverty alleviation. This again is specifically relevant in rural areas.

## 7.6 Conclusions and recommendations

- The tourism industry uses all possible resources and has well-established processes and growth strategies in operation. These strategies will ensure future growth in the tourism industry, and contribute towards the economic growth of South Africa, empowerment of disadvantaged communities and creation of employment opportunities. Skills development strategies are well established and gender inequalities are addressed.
- Emphasis is placed on entrepreneurship as one of the key clusters, with specific reference to SMME development and 'township' tourism. These strategies can play a substantial role in poverty alleviation in communities close to conservation areas or wildlife reserves.
- To ensure this growth in the industry, the rhino is needed in natural environments as the industry is reliant on South Africa's unique scenery and wildlife.
- The rhino, as part of the BIG 5, together with the scenic beauty of Table Mountain, contributes between 75% and 80% towards the tourism industry's input to the national economy. This amounts to a massive R181.4 billion. This clearly indicates that THE RHINO DOES NOT 'HAVE TO PAY TO STAY', it is already PAYING by its mere EXISTENCE in its NATURAL ENVIRONMENT!

From this analysis it can be concluded that the tourism industry, as a well-established and growing sector in the South Africa economy, needs to be embraced, supported and developed. Defined strategies need to be utilised and assistance given to strengthen initiatives, opportunities, skills development and entrepreneurial possibilities. This growing sector of the economy can substantially address poverty and economic empowerment of marginalised and rural communities.

## Chapter 8 What can be recommended as a way forward for South Africa?

### 8.1 Summary of findings as a conclusion to this study

The purpose of this research was to conduct a multidisciplinary investigation into different systems and structures relevant to the option of opening the trade. A neutral stand was taken to investigate the implications of relevant issues regarding the research question. Different economic sectors in which the rhino plays a role were included, and the contribution each make towards economic growth was investigated. After this detailed analysis, conclusions could be reached regarding each relevant system or structure. These systems and structures include:

#### *Stakeholders in the debate*

Three definite points of view are evident. These include pro-trade activists, neutral stakeholders and anti-trade proponents. Evidence indicates that South African citizens, as owners of 75% of the rhino population, are not included in any decision making. Many skills, values and positive attitudes (the love of nature) exist, but are severely underutilised. The majority of private rhino owners are against any trade negotiations, and evidence indicates that a mere 25% (only 5% of rhino owners) support the notion. Evidence strongly indicates that the PROA is not representative of private rhino owners in South Africa.

It can therefore be concluded that a small percentage of individuals are in support of the trade.

**If stakeholder's preferences are taken into consideration, trade cannot be considered.**

#### *Regulation of trade in endangered species*

**International trade:** The purpose of CITES is to regulate international trade. CITES cannot be blamed for the escalation in poaching, as not one of the signatories under investigation (China and South Africa) complies with CITES requirements. Of specific relevance is the bi-annual report that should indicate actions taken by the signatories in order to comply with CITES regulations. These include awareness campaigns, legislation, training programmes, cooperation between government departments and administrative measures taken to enforce CITES regulations. South Africa has never submitted a bi-annual report. No awareness campaigns are evident, not even in the KNP, except those initiated by the Honorary Field Rangers (volunteer nature lovers).

**Internal trade as regulated by TOPS:** Clear guidelines are available, but exploitation (specifically in rhino hunts) is evident. These include 'put-and-take hunts', 'medicinal hunts', 'pseudo hunts' and the hunting of very young animals. Corruption, mismanagement and non-regulation in the issuance of hunting permits are evident. Under-resourced and under-skilled government conservation employees and non-commitment of these employees adds to the existing problems. Professionals in the industry, specifically professional hunters and farmers, are implicated in illegal activities (strong proponents of the trade).



Evidence from a number of investigation agencies and arrests made in regard to illegal activities implicates hunters and 'farmers' in syndication activities. These will explode and come into full force should the trade be considered with the existing problems of regulation.

**There is no possibility of trade being negotiated before proper regulation and evidence of ethical hunting can be provided.**

A crucial issue is a properly conducted census to determine available stock (stockpiled horn and live animals), as no off-take can be determined without exact figures. Together with this, proof is needed that all horn (live animals and stockpiled horn) has been micro-chipped by trustworthy and skilled officials. Because government conservation areas are vulnerable targets, DNA analysis of animals in these areas must be included in the DNA data base. As this will be a time-consuming, detailed process, which will require a skilled task force, opening negotiations on trade agreements should NOT be considered.

### ***Economic analysis***

Because flooding the market with stockpiled horn seems to be an easy way to finance conservation efforts and anti-poaching initiatives, a detailed economic analysis was included in the document. The following were discovered:

**Global trends:** Recovery from the most severe global recession in history and a strong focus on sustainable practices, with a global shift towards activism and protection of natural environments ('put the planet first' (natural resources)). A strong global trend of protection of natural ecosystems was also found. Both these trends are evident in Asian (China) and African (South African) economies. The degradation of the environment in South Africa is especially severe (according to a global analysis).

**Product analysis:** Three products were investigated and overwhelming evidence was found that poached rhino horn is the product in demand. This may merely be because it is the easiest product to acquire, as there is easy access with little or no consequences. A number of investigation agencies and the literature indicate this as reason why poaching is escalating.

Farming as agricultural activity cannot be considered as farmed wild animal products are considered less potent than wild animal products. Asian countries can initiate agricultural activities in consumer states or on African soil. Why would Asian 'user countries' then 'trade' with South Africa if they can offer the product or substitute products to a large consumer base?

An additional problem is that rhinos are still poached even if the horn is 'harvested'. This indicates that anti-poaching initiatives will still have to be enforced. Dehorning of rhinos in government reserves was found to be impractical, and it is specifically here where the poaching problem lies.

Agricultural activities cannot be used as a tool for economic empowerment as it was found to be an unstable industry in the South Africa economy (see section 7.5.3). Farming of rhino horn is also not conducive to food security, as small-scale farming and eco-practices are recommended to emerging farmers (Ministry of Agriculture, Budget speech, 2012). UNEP supports this notion.

Stockpiled horn is the most controversial product and the most obvious in which to enter into trade. There are many problems surrounding this product (see section 6.5), the most extremely concerning of which are the illegal supply chains and laundering of legal horn into illegal markets. Farmers and hunters are strongly implicated.

In addition to this, the strong operational illegal trade would have to be countered by legal trade. Relevant key issues are the low recovery of poached horn, laundering and the definition of 'natural deaths'. Restricted trade would offer additional legal avenues to existing illegal operations and poaching would merely escalate. Another problem with the regulation of illegal supply is, as a number of literature studies indicate, that traders would merely resort to the cheapest price or the easiest product available. Proposals have been made to trade with pharmaceutical companies in Asia, but how would other consumers (globally, e.g. Europe and America) be accommodated? Evidence was found that TCM is not the market that drives the current poaching, but there are warnings in this regard that it can lead to an explosion in demand.

From the detailed product analysis, the conclusion can be drawn that illegal demand will continue to exist, and poaching will escalate due to increase in demand (as a result of lowering the price) (see section 6.6) as the preferred product is from poached rhinos.

### ***The supply and demand theory***

Because South Africa has a restricted supply of stockpiled horn, the most recent proposal is for 'restricted trade'.

The supply and demand theory was investigated and it was found that it is ONLY relevant to the production of products aimed at GROWING current markets. It equals, in everyday terms, a sale, and its purpose is to introduce new consumers to a product. The sole purpose of the proposed trade in rhino horn is to REDUCE consumption, and thereby curb the current poaching.

### **'Restricted trade' is simply not viable. Key questions include:**

- How will it be restricted? (How will illegal supply chains be countered and how will consumers/buyers/traders excluded from sales be accommodated?)
- How will 'natural deaths' be defined and how will this be ensured? (Will recovered horn from poaching incidents be regarded as natural deaths?)
- How will the explosion in demand (diagram 1) be accommodated?
- How will competition between traders be regulated? (How will traders who are excluded from the process be regulated and what preventive measures will be taken to ensure that laundering does not take place?)
- The supply and demand theory represents two opposing forces (supply and demand). These forces never operate in isolation but interact with each other. A certain supply of stockpiled horn can therefore not be seen as a solution, as the 'push force' of demand needs to be included in the analysis.
- A detailed supply and demand analysis is provided (see section 6.6) and the danger and definite explosion in demand is graphically illustrated (see diagram in Figure1).

### **Key questions concerning supply:**

- Only a small percentage of rhino owners want to enter the trade.
- Supply is unknown, as figures of stockpiled horn and live animals are unknown. The latest census was conducted during 2007/8, which makes supply figures irrelevant.
- Private rhino owners are, for a number of reasons, not prepared to declare stockpiled horn. Supply can therefore not be determined.

### **Key questions concerning demand:**

- Demand cannot be determined, therefore it cannot be regulated.
- Currently, at the high price, few consumers can afford the product, but by lowering the price, a large number of consumers will be introduced to the product, which will lead to an explosion in demand, resulting in a massive escalation of poaching.
- The existing illegal supply chains currently operational cannot be determined, therefore their influence on legal supply cannot be estimated or countered.
- The price of the illegal product is unknown as it varies from trader to trader and country to country. At what price will the legal trade enter the market to counter illegal prices and reduce poaching?

A definite conclusion concerning the supply/demand theory could be reached, and that is that lowering the price will ultimately lead to an explosion in demand. The supply/demand theory is only relevant when the ONLY variables are supply and demand, as expressed in price and quantity. Unknown variables such as illegal supply chain management and laundering render the theory irrelevant. The application of the theory indicates an ultimate EXPLOSION IN DEMAND, which would be an explosion of current poaching activities beyond control (see diagram in Figure 1).

To enter the international market in rhino horn with so many variables involved, can without doubt be rejected as a possible solution to the poaching problem. With available information, the opposite is a dangerous alternative.

### ***Risk analysis***

A number of risks associated with entering the trade (ref.: par. 6.7) were discussed in detail. Some of these include:

**External risks (see section 6.7.1):** External risks, or the risks to South Africa as a country, imply negative consequences South Africa would have to face if opening the trade were considered. These include the following:

- The conversion of capital to the tourism industry is enormous. The tourism industry is one of the few growth sectors of the South African economy, and has well-operating strategies for continuous growth.. An added advantage is 'flow over' economic activities, economic empowerment and skills development in rural areas. Employees are empowered and receive above-average salaries, enabling them to contribute towards economic growth. This is especially relevant for the recovery phase of the global recession and the restricted growth predictions in other economic (agricultural) sectors.

- Negative consequences could be expected for the global image of the country as a wildlife destination of choice.
- The effect of illegal trade in endangered species will escalate, as legal avenues would be created and different illegal activities would emerge that are closely linked to the rhino horn trade.
- Supply chain management (6 levels) includes professionals in all areas. Legal opportunities would merely enable more loopholes. This is already evident in the hunting industry. It would be much easier to launder rhino horn into illegal markets.
- Low risks associated with illegal activities will not deter current illegal supply chains, and the consumer would merely select the cheapest and easiest alternative.
- There are currently global awareness campaigns with the main focus on 'RHINO HORN IS NOT MEDICINE' in user countries (China and Vietnam), and international environmental investigation agencies are attempting to limit illegal trade. What damage would be done to the moral, ethical and responsible trade and future investments in South Africa? This is especially relevant to limiting factors such as corruption and crime, which are counterproductive to economic growth in South Africa.
- The extremely unethical practice of providing useless medicinal products to terminally ill people when evidence exists that it has no value and a number of alternative products are available. In addition, there is the strong stand TCM takes against the use of endangered animal products.

**Risks associated with production processes (see section 6.7.2) and financial risks (see section 6.7.3)**

In the 'production' process, a number of risks were found in the literature. These include the following:

- The main risk to the trader is the financial viability of the trade. Many risk factors in this regard were found, and no evidence suggests that they can be addressed. Key concerns include the absence of relevant strategies to ensure that the trader can enter the market.
- The absence of a known or proposed price for the product is an additional hampering factor.
- Crucial to the debate is, again, the unknown possible supply and the completely unknown demand. Will supply be able to meet an unknown global demand and what will happen to consumers who cannot be accommodated from the legal supply?
- How will the commercial 'farming' process work, how will it be regulated and what level of conservation will be enforced (re: the canned lion industry)?
- A key concern is that rhinos need large areas in which to live. This is an additional risk for the proposed 'farmer' or farm worker.
- Government officials in conservation are already under-resourced and under-skilled, and corruption is rife. What guarantees and processes will be implemented to address these problems?
- The associated costs involved in harvesting, with professionals in the field already involved in illegal supply chains, is another risk factor to consider.

A detailed risk analysis undoubtedly indicates that the risks outweigh the small advantages of the proposed trade by far, and should therefore not be considered as a viable option to curb or even

reduce the current poaching. Again, the contrary, namely an escalation in poaching, can be predicted, as is indicated by the supply/demand analysis.

A detailed economic analysis was done and an investigation of the relevant areas included. Not one of these areas indicated any possible positive outcomes of open trade.

### ***The influence of the trade in rhino horn on economic growth in South Africa***

The rhino influences the economic landscape in South Africa as one of the key export products and a member of the BIG 5. South Africa is marketed as the wildlife destination of choice, and marketing websites cite wildlife and nature experiences as the top eight (contributing more than 80% to the income generated by the tourism industry) attractions for local, regional and international tourists. The industry contributes between 8% and 9% to the GDP of the country. It is labour intensive and return visits ensure the creation of employment opportunities. This is specifically relevant in rural areas.

It was therefore necessary to include an analysis of the different economic sectors relevant to the debate. These sectors include tourism (non-consumptive use of wildlife), hunting (consumptive use of wildlife) and agriculture (wildlife ranching).

A hampering factor which adds to problematic issues mentioned (throughout the research process), is the fact that these sectors are regulated by three different government departments (the department of Environmental Affairs, the Department of Tourism and the Department of Agriculture). This hampers well-defined strategies, regulation and control. The literature indicates a more eco-sensitive and regulated approach. The concept of differentiated areas such as allocated 'hunting blocks' is suggested. Conservation fees linked to consumptive use of wildlife and more tourist attractions in hunting venues are additional recommendations.

Although consumptive use of wildlife (hunting) may contribute to the income generated by tourism, no evidence of this could be found as none of the marketing websites mention hunting in their marketing approaches. Because hunters (who strongly object to the hunting moratorium to allow time to sort out the many problematic areas in the industry) and 'farmers' are perceived to be more inclined towards the pro-trade stand, as opposed to non-consumptive tourist establishments (with a strong no-trade stand) this analysis was done with limited information available, for example, no distinction could be made between land area allocated to tourist establishments, hunting establishments or breeding facilities, as all are defined as 'ranching' (see Table 1).

After a detailed analysis and comparison of relevant economic sectors, the following can be concluded:

The tourist industry (non-consumptive tourist activities) contributes 8.4% to the GDP of South Africa. A number of growth strategies have been developed and there is strong progress towards a contribution of 9–10% in 2020. Wildlife and nature-related tourism contributes 70–80% towards this input. The tourist industry has a strong focus on specific goals to establish SMMEs, economic empowerment, skills development and creation of employment. This is specially relevant in rural areas. Marginalised communities and economic empowerment are therefore specially relevant, as one of the focus areas of the tourism industry is on 'township tourism' and traditional or cultural heritages.

Reserves focus on ecosystem protection because tourists want to see as many species as possible. This is specifically relevant to the rhino, as rhinos need large areas to live in natural environments. At the same time, rhinos can be viewed as a 'canopy species' as they specifically contribute towards the protection of large ecosystems. As tourists make return visits to South Africa, there is a need to 'find wildlife in natural environments'. Photo safaris are becoming increasingly popular among to wildlife tourists.

The opposite is evident in the hunting and ranching industries. Hunting contributes little to the national GDP; the IUCN indicates as little as 0.04%. A number of studies indicate a variety of problems in the industry, and with large land area allocated to hunting, problems of economic development are very relevant. Hunting is perceived as a rich man's sport and therefore out of reach of the majority of South African citizens. Transgressions in the issuance of permits and selection of trophy animals have been identified as critical problem areas. Hunting fees go directly to the hunter or farmer, and a number of studies recommend a specific conservation/hunting fee towards conservation initiatives.

Community development, empowerment and employment opportunities are extremely limited. The literature indicates as few as 15 000 permanent jobs in the eight major hunting destinations in Africa.

Many transgressions are specifically relevant to rhino hunting. A moratorium has therefore been suggested, as hunters can still hunt 64 other trophy species.

Agriculture as an economic activity has a land area allocation of 82%, but only contributes 4.5% to the GDP of South Africa. Ranching or wildlife farming as an agricultural activity occupies 16.8% (25% of agricultural land). According to the Sector Analysis (AgriSETA, 2010) wildlife ranching only contributes 0.1% to the GDP of the agricultural sector.

Despite this massive land area allocation, agriculture only contributes 5% to employment opportunities in the South Africa economy. Agriculture as an economic sector pays the lowest average salaries compared to other economically active sectors, and these salaries were found to be too low to lift individuals above critical poverty levels. Agricultural employment opportunities were found to be unstable for a number of reasons, and exploitation of workers is evident. Growth in the industry is hampered by strict labour laws and mechanisation of farming. Research indicates further reductions in employment opportunities.

Specific growth strategies, economic empowerment of local communities and skills development within the industry could not be found. Food security is therefore a critical aspect and small-scale farming is recommended (budget speech of the Minister of Agriculture, 2012; UNEP, 2011). To allocate more land area to agriculture is therefore only relevant to ensure food security. The rhino is relevant to the empowerment of local communities due to its benefit to eco-tourist activities; established skills development strategies can be utilised and economic empowerment within a growing economic sector assured. Strict regulation should be enforced to ensure that only animals beyond their productive age are utilised for consumptive tourist activities to benefit communities. It must be noted that 64 other species can still be used for ranching, should rhino populations on ranchers' properties be at risk.

From this analysis it can be concluded that non-consumptive tourism is the most obvious sector to assist with growth in the economy, poverty alleviation and empowerment of local communities. Conservation efforts should include local communities and incentives must be used to ensure community involvement in anti-poaching initiatives. The problem of corruption, and therefore the benefit communities gain in practical terms is again relevant.

From this detailed conclusion, it is evident that non-consumptive tourism offer ample opportunities for economic empowerment, skills development and poverty alleviation. Consumptive tourism should be part of a well-developed and regulated system to enhance opportunities for local communities to benefit from conservation efforts.

## **8.2 Possible solutions**

- This research indicates that trade cannot be an option, as too many irregularities and problems are evident in the different industries and among the respective role players who will be involved in the process.
- The DEA should take a firm stand in this regard. Indications are that well-developed and targeted intergovernmental negotiations and awareness initiatives (effect of outrage and stigma) can have substantial success. The seizure of the rhino horn shipment in Hong Kong and the stand from TCM practitioners serve as evidence.
- South Africa needs to take the lead and be an example to other countries in the region, with firm and dedicated action to solve and reduce the problem of poaching and to protect national and regional natural resources. The unique and abundant wildlife experiences offered by South Africa and the African continent make a major contribution to economic growth and aid recovery from the global recession.
- Restricted trade does not offer an alternative because the force of illegal supply/demand is too strong. Illegal trade is a massive and growing industry; therefore a halt to any trade possibilities is the only way stockpiling and poaching can ever be reduced.
- A strong message regarding endangered species and protection of natural resources will be sent to the world.
- Because the tourism industry is a strong growth sector in the recovery phase of the South African economy, with clear evidence of strategic and focused growth, more emphasis needs to be placed on protection of natural environments. This industry is heavily reliant on natural resources, specifically the BIG 5 and the Western Cape (Table Mountain) as is evident from marketing websites. Private reserves and private rhino owners in the industry contribute to growth of the industry and therefore need protection and assistance in safeguarding current rhino populations. Enhancing tourism and conservation in rural areas contributes largely to other economic sectors.
- A dedicated, all-inclusive and well-skilled strategic management team should immediately be put in place to design and implement a well-defined strategy with clear time frames and purposeful action. The Ministry of Tourism needs to be involved on a high level as strong indications are that established growth plans are under threat.
- An immediate moratorium should be placed on all hunting, not only on hunting permits from countries without appropriate legislation. Too many loopholes exist and systems are abused (see pseudo hunting). Hunting and ranching will not be affected, as there are 64

other species that can be hunted and ranched while the rhino problems are addressed. This will enable a proper count existing live animals and a proper census of stockpiled horn.

- Capacity building with employees in conservation agencies should be a priority. The focus needs to be placed on the importance of the value of wildlife. In this regard, labour unions should be engaged as stakeholders.
- Streamlining and central control of all permit issuance should be a priority, as TOPS guidelines are abused, specifically by under-resourced conservation agencies.
- An all-inclusive representative organisation of private rhino owners is desperately needed, or an alternative organisation needs to be established to ensure that private rhino owners are inclusively represented – it is clear from the evidence that the PROA represents only 25% of current private rhino owners in South Africa. No other African countries have private rhino owners because wildlife belongs to the state, and therefore to the people of Africa.
- Interdepartmental negotiations with government departments should be initiated. The judiciary needs to be involved on a high level to understand the importance of wild life crimes, specifically rhino-related transgressions. Severe sentences for any transgressors must be enforced.

**There is no other way the rhino can be saved for South Africa, in South Africa.**



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