Game Ranch Economics
The Trend Towards Game Ranching in Southern Africa

South Africa is game

Game ranching is the fastest-growing branch of agriculture in South Africa, with the majority of game ranches found in Limpopo, the Northern Cape and the Eastern Cape. The total area covered by these privately owned ranches now exceeds that of all national parks and provincial nature reserves put together. In terms of game ranching, game is considered to be an agricultural product as defined in the Marketing of Agricultural Products Act of 1996.
Game Industry Overview

South Africa’s Game Ranching Industry has transformed into a multi-billion-rand enterprise over the past few decades. It now ranks as SA’s sixth-biggest in the agricultural sector and employs more than 100,000 people.

“Currently, the economic contribution from the live game breeding and supported industries is estimated to be well in excess of R10 billion, notably more than the contribution from hunting (Cloete et al., 2015).”

The value of game animals sold on formal auctions alone has increased from R93 million in 2005 to more than R1, 8 billion in 2014 – an estimated average annual increase of 26% over nine years.

Current prices and the successive profitability of live breeding, especially in terms of higher value and/or colour and morphological variants, are likely to decline in future; once supply exceeds demand. Although live breeding will remain central in terms of economic contribution and the successive growth of the game ranching industry, it is expected that the growth rate and the successive contribution from the specific segment will be lower in future.” (Source: Growth expectations for the South African game ranching industry. FLIPPIE CLOETE)
The value of game animals sold on formal auctions alone has increased from **R93 million** in **2005** to more than **R1,8 billion in 2014**. Auction sales account for about a third of total sales, most of which are between game ranchers. In 2016, a top breeding buffalo bull in South Africa was sold for a whopping **R168-million**, making it the most talked about bull in the world right now!

At the forefront of demand are breeders whose aim (like that of their counterparts), is to produce outstanding examples of a particular breed. The demand is reflected in the strong surge in value of game sold at auctions.

There are now more than 10,000 commercial game ranches covering 20, 5 million ha. This represents about a quarter of SA’s 84 million ha of grazing land. Game ranches covered 14, 9 million ha in 2005 and 7, 1 million ha in 1993.

The game industry’s revenue has grown at an average 20,3%/year over the past 15 years. In addition to hunting, **Eco Tourism** represents only another **R1 billion** in direct revenue.
Foreign Leisure Hunters

The fortunes of game populations and the people who cultivate them, has changed dramatically over the previous half century.

A census in 1964 revealed that SA had a mere 557,000 head of game.

A census in 2005, by the same team using the same measurement process, found that the number of game had grown to 18,600,000. One example of some of the amazing recoveries in game populations from perilously low levels include White Rhino numbers have risen from 28 in 1964 to ± 18,000, and black wildebeest from 34 to 26,000.

The main reason for the recovery of wildlife outside of national reserves is due to a quiet private-sector conservation revolution that has been built on hunting.

For conservation to succeed, wildlife must be economically sustainable and able to compete with commercial farming. Photographic ecotourism alone has been shown to be incapable of ensuring this. Look at Kenya, traditionally the ecotourism safari-capital of the world where hunting has been banned since 1977. Since then Kenya’s game numbers have fallen by 80%.

“Hunting has been the single biggest factor in the success of conservation in SA; when game gained a commercial value, it became protected.”
Kenyan-born palaeo-anthropologist Richard Leakey, once a vehement opponent of hunting, conceded this to The Economist a few years ago: “Market forces are essential for the long-term survival of species.”

The banning of hunting in Kenya provided the South African game industry with the demand kick-start it required. From a mere three game ranches in 1960, the numbers grew rapidly, reaching 3,300 by 1987 and passing the 9,000 mark less than a decade later.

A major factor in the success of the game industry has been the influx of foreign leisure hunters, especially from The USA, Canada, Germany and Spain. Although few in number the foreign leisure hunters make up for this by being big spenders.

The statistics on foreign leisure hunting published by government were for the 12 months to March 2007. They show that SA hosted 16,394 foreign leisure hunters who spent ± R2 Billion during the 12 months. The spending was both directly on hunting and indirectly on travel, accommodation and specialist services, including taxidermy and fees for professional hunters.

The Wildlife Ranching South Africa estimates taxidermy to be worth R300 Million annually. According to SA hunting regulations, a professional hunter must accompany foreign leisure hunters.
On a per person basis, in 2013, each foreign leisure hunter spent about **R140,000**. This was roughly **14 times more than that spent by the average foreign tourist** arriving in SA by air. Preliminary figures for 2013 indicate that hunting alone contributed to R8 Billion to the South African GDP. (Source: The New Game Rancher - Pamela and Peter Oberem)

Today, (2016/2017), the average price charged for a Buffalo alone can reach up to **R170 000.00**. This does not include travel, accommodation, taxidermy services etc.

Americans represent the largest number of hunters coming to SA. For many hunters, **buffalo is the big attraction** and the same people come back year after year to hunt them.

There is increasing interest in South Africa as a destination among hunters from emerging market countries, particularly hunters from Russia and East Asian countries. **South Africa has a significant competitive advantage** over many other countries in Africa due to ease of travel, professional services, value for money, modern amenities and security.
Local Hunters

The local game industry also has strong support from local hunters who number around 200,000 - 300,000 members.

(Source: The South African Hunters and Game Conservation Association. www.sahunters.co.za)

"Local recreational hunters spent R6.3 billion in 2013, according to new research from Professor Melville Saayman of the North-West University. The calculation is R800 million higher than the previous estimate of R5.5 billion, due largely to inflation.

On average, an estimated 200 000 hunters spent R16 565.95 on game and R16 565.95 on additional expenses for a combined total of R31 472.60 per hunter for the 2013 hunting season. The most significant extra costs included accommodation (R3 019.73), transport (R3 511.20), hunting gear excluding ammunition (R1 994.60) and food (R1 568.86).

Most of the hunters surveyed (29%) hunted twice in the last year, followed by 21% who only hunted once and 18% who hunted three times. A three-day hunting trip proved to be the most popular among respondents (35%), followed by 26% who hunted for four days, 16% who hunted for two days and 12% who hunted for five days. The most popular hunting grounds among respondents were Limpopo (50%), the Northern Cape (48%) and the Eastern Cape (38%).

The top five game species that were hunted in 2013 were springbok (28%), impala (16%), blesbok (11%), warthog (10%) and kudu (8%) at an average price of R536 for springbok, R897 for impala, R809 for blesbok, R532 for warthog and R3 565 for kudu. The meat was mostly processed into droëwors and biltong, followed by mince, stewing cuts and braai meat.
The North-West University has been tracking the local hunting industry’s contribution to the economy since 2005 in an ongoing report titled the “National Profile and Economic Impact of Biltong Hunters in South Africa”. The research is conducted by means of a survey posted on two prominent hunting associations’ websites with respondents required to complete the questionnaire by the end of October, a month after the hunting season finishes. Previous surveys were carried out in 2005, 2007, 2009 and 2010.

The results from the questionnaire are then extrapolated to the total number of known local hunters in South Africa which, according to the North-West University, is 200 000. However, Chris Niehaus, chief executive of the South African Hunters and Game Conservation Association (SAHGCA), one of the participating hunting associations in this research, points out that the 200 000 estimate could be conservative and that the local hunting population may even be as high as 300 000 individuals. “The true figure (if one includes slippage due to the cash nature of most of the industry) could be closer to the 300 000 mark, meaning that the local recreational hunting industry could’ve contributed as much as R9.4 billion to the economy in the 2013 hunting season,” he says. “(Source: The South African Hunters and Game Conservation Association. www.sahunters.co.za)
South African Hunting Statistics for 2015 – Some Observations

5 December 2016 by Peter Flack

I received the South African 2015 hunting statistics this week and was delighted to see that, after five years of steady decline – we reached our peak number of overseas hunters in 2007 (16 394) – there was a very slight increase from 7 405 in 2014 to 7 633 or 228 (3%) of overseas hunters in 2015. I know this does not sound like much but, assuming these statistics are accurate and I will come back to this point, when you multiply the increase by their average expenditure on just daily rates and trophy fees of R216,334.00 per hunter, it comes to a not inconsiderable R49,3 million, which goes to show just how important every single overseas hunter is to the country. When you then add the knock-on expenditure on things like internal flights, car hire, hotel accommodation, sight-seeing both before and after the hunt, taxidermy, gratuities and so forth, the value to the country starts to mount up, particularly as most of this is spent in rural areas which need it most.

Once again North American hunters (4 693) made up the majority (61%) and lions most revenue earned – some 638 captive bred, domesticated animals, the vast majority shot in paddocks in a totally unacceptable manner, presumably by North Americans, brought in a sum of R181 million in round numbers.

Interesting then to read in the November issue of Safari Times, the SCI newspaper that, “On October 20, Director of US Fish & Wildlife Service (USFWS) Dan Ashe announced the decision regulating the import of sport hunted lion trophies under the Endangered Species Act (ESA) from South Africa. The United States will not allow the import of lion trophies taken from captive lion populations in South Africa. However, wild and wild-managed lions from South Africa will receive import permits.

USFWS and CITES has recognized the importance hunting plays in conservation. Ashe stated USFWS determined, ‘that sport hunting of wild and wild-managed lions does contributes to the long-term conservation of the species in South Africa,’ and continued to explain that, ‘lions are not in trouble because of responsible sport hunting.’”
What this will do to the revenue earned by this disgusting practice in 2017 is difficult to predict but, one thing is certain, this latest announcement by USFWS is not good news for the breeders of these animals and, hopefully, will go a long way towards stamping out a practice which has done more to damage hunting in, and deterring overseas hunters from coming to, South Africa and thereby damaging the conservation successes of which this country can be justifiably proud.

Over 80% of these canned lion killings took place in North West Province, so it is worth bearing in mind when offered a lion ‘hunt’ in this province that it is almost certainly a canned killing and not a hunt. The other contenders for the top money generating trophy spot were 812 Cape buffalo (R145 million) and the perennial top antelope trophy, 2 823 Southern greater kudu (R103 million).

Incredible as it seems after all the negative publicity and intense public dislike displayed by both genuine hunters, their organisations and the public at large, this practice continues unabated and 638 captive bred, domesticated lions were killed in 2015 at a cost of R181 million despite the damage this continues to do to the image of South Africa as a hunting destination and the negative knock-on effects on conservation.
Cape buffalo generated **R145 million** in trophy fees in **2015** putting them second on the list of top trophy earners.

Southern greater kudu were once again the top antelope revenue generator in **2015** bringing in **R104 million**.
Limpopo Province hosted the vast majority (3,189 or 42%) of the overseas hunters and this is reflected in the average daily rate charged in the province which, at R710 per day, is the highest of all provinces especially when compared to the Western Cape whose average for its paltry 72 overseas hunters was nil. How this is possible, I do not know but it is one of the many unanswered questions that arise from even a cursory reading of these statistics and which cast doubt on both their accuracy and veracity.

The average, unweighted daily rate for full board and lodging across the country comes to $35 or less than R490. This is less than a decent steak dinner for four plus a mediocre bottle of wine. These statistics highlight a major issue and that is that hunting in South Africa has become commoditised as more and more people have flocked to the hunting industry since 1994 and offer hunts on their properties without seemingly understanding either the needs of overseas hunters or the marketing required to attract them.

To digress for a moment, marketing includes advertising, public relations, sales, strategic planning and what is often called ‘genuine’ marketing, which seeks to create a need in the target market for particular products or services. In the absence of comprehensive marketing as defined above, many of the more recent entrants to game ranching seem to confine their efforts to selling their game via intermediaries to overseas hunters based on price and price alone. They offer more for less. More animals at lower prices, more animals per day and more hunting days for lower prices. This is certainly borne out by the daily rates across the country with the most expensive going for barely $50 per day for full board and lodging as opposed to the daily rates in, say, Tanzania where plains game daily rates are around $650 per day and dangerous game hunts around $2,000 per day.

On the other hand, trophy fees are correspondingly higher in South Africa than in most of the countries that compete with South Africa for overseas hunters. This may be due to the fact that in most of these competitor countries hunting takes place on government land, the trophy fees go directly to government and these plus other costs such as firearms import fees, hunting licence costs, conservation fees (which are never spent on conservation), community fees, visa costs, trophy dip and pack costs etc., etc., are already so high that the safari operators cannot increase their trophy fees for fear of losing clients. An extreme example of this is the Ethiopian government charge of $15,000.00 for a mountain nyala licence and $6,000.00 for a Menelik’s bushbuck licence, which has to be purchased before the hunt and there is no refund should the hunter not shoot one. What makes this example worse is the rumour that the government plans to double these licence fees in the near future.
South African meat hunters have been complaining ever louder over the last few years at the charges of some game ranchers. Spare a thought for the overseas hunters, on the one hand, and then also realise, given the trophy fees they pay, how valuable they are to the game ranching industry, on the other hand. A glance at the average trophy fees charged to overseas hunters shows the following rounded off and using the Rand at 14 to the Dollar:

<table>
<thead>
<tr>
<th>Animal</th>
<th>US Dollar</th>
<th>Rand</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buffalo</td>
<td>$12,740</td>
<td>R178,395</td>
</tr>
<tr>
<td>Eland</td>
<td>$2,800</td>
<td>R39,390</td>
</tr>
<tr>
<td>Gemsbok</td>
<td>$1,360</td>
<td>R19,075</td>
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<tr>
<td>Hartebees</td>
<td>$1,175</td>
<td>R16,440</td>
</tr>
<tr>
<td>Impala</td>
<td>$625</td>
<td>R8,730</td>
</tr>
<tr>
<td>Kudu</td>
<td>$2,630</td>
<td>R36,825</td>
</tr>
<tr>
<td>Roan</td>
<td>$9,665</td>
<td>R135,295</td>
</tr>
<tr>
<td>Sable</td>
<td>$8,555</td>
<td>R119,755</td>
</tr>
<tr>
<td>Springbok</td>
<td>$720</td>
<td>R10,115</td>
</tr>
<tr>
<td>Wilde Blue</td>
<td>$1,040</td>
<td>R14,560</td>
</tr>
<tr>
<td>Zebra Plains</td>
<td>$1,265</td>
<td>R17,710</td>
</tr>
</tbody>
</table>
A Growing Agriculture Sector

There has been a significant shift away from conventional cattle and sheep farming to game ranching. Game ranching should not be seen as being different to any other agricultural sector. In common with other agricultural sectors, game ranching represents the sustainable use of a national resource.

The reason for the swing to game ranching is not hard to fathom: game is capable of producing significantly higher returns, particularly in regions that are not suited to crop farming or conventional stock farming.

And for the most part regions unsuited to conventional farming represent the greatest proportion of South Africa because of its limited water supply. South Africa ranks as the country with the 30th-lowest average annual rainfall.

According to the department of agriculture, only 12% of the country — about 15 million hectares — can be used for crop production. And only 2,6% of SA is considered high-potential arable land.

Taken across the entire agricultural industry, Dry says the average output per hectare is US$200 less than the world average. He says the return on capital achieved by cattle farmers in grasslands suitable for cattle averages 4,8%. In the agriculturally marginal Bushveld regions, the return falls to 1,9%. In the even tougher Lowveld regions, the average return is just 0,9%.

By contrast, even under tough Lowveld conditions, Dry says the average return on capital deployed in a game ranching venture is 3%. In the Bushveld, it rises to 5,7%. He says Limpopo province, which is predominantly Bushveld by nature, is home to about half of SA’s game ranches.

The return for game ranchers in the Lowveld who breed buffalo is significantly higher, at about 21%. This explains the record R40m R20m and R18m paid for buffalo, as well as the more standard prices of around R1,2m for top breeding animals.

“Foreign hunters are prepared to pay anywhere from $10,000 to $25,000 for a trophy buffalo,” says Schutte.
Game farming also more than holds its own in regions where conventional stock farming is confined primarily to sheep and goats because of arid conditions.

“There are thriving game ranches even in areas where goat farming is unprofitable,” says Flack.

Dry says that in the Karoo the average return on capital of a large sheep farm is 7.2% and in the Kalahari 7%. Returns for game ranching average 9% in the Karoo and 8.3% in the Kalahari. About 20% of SA’s game ranches are located in Northern Cape Province, which incorporates 370,000km² of the Karoo and Kalahari.

Wherever it is located, establishing a game ranch calls for deep pockets. “On average, even the most successful game ranch requires at least R6 in capital outlay for every R1 generated in revenue annually,” says Dry.

“A small ranch requires an investment of R3,5m. A large ranch would require at least R16,5m.” The total existing investment in game ranches is estimated to be about R20bn.

It is not only South Africans who are being attracted into the game ranching industry, says Van Hoven. “We have assisted investors from as far afield as Saudi Arabia, Russia and even Bulgaria to develop game ranches.”

The industry is also attracting wealthy black business people, says Schutte. Probably the most prominent among them is Cyril Ramaphosa who became a member of game breeding industry association Stud Game Breeders in 2010.

Quoted by the association, Ramaphosa had encouraging words for the game ranching industry. “SA is uniquely positioned to capitalise on the tremendous opportunity that the game industry presents, if the industry is developed appropriately. Sustainable and inclusive wildlife breeding approaches will deliver economic value and preserve our wildlife heritage for generations to come.”
Food Security

The role of SA’s wildlife heritage and game ranching extends well beyond hunting and ecotourism. It has the potential to play a role in ensuring the country’s food security.

Up to now the game industry’s role has been relatively limited. “SA exports about 75,000 head of game a year, primarily to EU countries,” says Piet Neethling, MD of Camdeboo Meat Processors, which operates SA’s biggest game and ostrich abattoir in Graaff-Reinet. He says springbok is the primary venison export and earns SA only around R60m-R70m annually.

Neethling continues: “Domestically there is a small restaurant and retail market for venison. Hunters also take a lot of meat home. But even including these, I would estimate the total value of SA’s venison market at only R300m to R400m annually.”

The value of exported venison is dwarfed by SA’s red and white meat imports which, Dry says, are running at almost R4bn/year. SA’s red meat industry in particular is experiencing capacity constraints that have been highlighted by wildlife veterinarian and researcher Kobus du Toit. He estimates that the number of cattle farmed commercially in SA has been stable at around 8 million since 1971.

Du Toit also estimates that the number of sheep farmed commercially in SA has held steady at about 28 million over the past four decades. But over the same period, SA’s population has grown from about 20m to 50m.

Providing similar estimates for commercial cattle stock numbers, Red Meat Research & Development SA (RMRD) reports that cattle meat imports into the country are running at 32000t/year, or about 5% of local consumption. In addition, SA imports 170,000 live cattle from Namibia annually.

RMRD reports that mutton imports are about 50000t/year or almost a third of local consumption. Taking a more pessimistic view than Du Toit on stock levels, RMRD estimates that the number of sheep on commercial farms has fallen by 3m over the past decade to about 22m.
One of the reasons for the stagnation in SA’s commercial cattle numbers and decline in sheep numbers RMRD puts forward is a lack of suitable grazing. This is not a problem faced by game ranching. Game animals are better adapted to local arid conditions, and the carrying capacity of land is far greater for game than for cattle and sheep, says Van Hoven. “Cattle and sheep only graze ground vegetation while different species of game utilise different plant material, from grass to trees,” he says.

Flack points out that game such as springbok, impala and wildebeest are also prolific breeders. “Their numbers grow at between 25% and 35% annually,” he says.

Malan believes the time has arrived for the game industry to increase its penetration of the red meat market. “The industry now has the stock levels to expand significantly,” he says.

A big step in this direction is being taken with the establishment of an abattoir focused on game meat in the Waterberg district in Limpopo. “We are in the process of having the abattoir certified by health authorities,” says Peter Oberem, a local veterinarian who heads the initiative, Waterberg Natural Produce.

The abattoir, says Oberem, has the financial backing of a number of game ranchers in the region and will have an initial daily capacity of 140 wildebeest. “There is more than enough stock to meet our requirements,” says Oberem. The slaughtered weight of wildebeest varies from about 100kg to 150kg. The initial focus, he says, will be on supplying the domestic market. “You have to build a local base first. We have learnt a lot from the ostrich industry, which built its model on meat exports.”

The ostrich industry is facing serious problems as a result of an outbreak of avian flu which has led to a complete cessation of exports to the EU, its biggest market.

However, exports do form part of Waterberg Natural Produce’s longer-term strategy. “There is huge potential for exports to Europe,” says Oberem. “New Zealand alone exports around R2,5bn annually, primarily to Germany.”

The big attraction of venison is that it is a high-value product. “Every 1 kg of venison exported pays for 3 kg of red meat imported,” says Oberem.

At a time when SA is facing growing food insecurity, its wildlife ranching industry could not be in better shape to play a role in providing part of the solution. Summing up the situation, Flack says: “Wildlife and wildlife habitat in the country have never been on a sounder footing in at least the past 100 years.”
Too few tourists and too many beds, is what’s hammering the game lodge sector.

Too much of a good thing can be bad, a reality a large proportion of SA’s more than 700 private game lodge operators catering for ecotourists are learning the hard way. “The game lodge sector is in dire straits,” says Colin Bell, an ecotourism industry consultant.

“There’s blood out there,” says Jan van Heteren, owner of Jaci’s Lodges, operator of two lodges under concession in North West province’s Madikwe game reserve. “No more than 5% of game lodges are making money.” Thanks to costly marketing and a strong brand built over 16 years, he says, Jaci’s Lodges is one of the 5%, but even its occupancy rate is down from 80% to 60%. Bell says the average lodge occupancy rate is about 20%.

“The Americans are still coming,” says David Evans, a director of Mala Mala. “The big fall has been in visitors from Europe.” The result, he adds, is that many lodges have been forced to cut prices and raise commissions to travel agents. Chick Legh, owner of The Outpost, a concession lodge in the northern part of the Kruger National Park, says visitors pay R3,500/day each but his lodge receives only about R1,700 after agents’ commission.

Director of ecotourism services firm Livingstone s Supply Co Peter Anderson says the slump has sparked big staff layoffs by lodges. He and Bell lay the blame for the lodge sector’s plight on tourism marketing bodies. “The lodge sector is under threat because we don’t get enough foreign tourists,” says Bell. “Kenya, Botswana and even Zimbabwe are pumping but SA is stagnating.”

South Africa gets, at best, 1,2m leisure tourists annually after adjusting for factors such as people visiting family and friends, says Anderson. “We need to at least double that number.”

No doubt, South Africa needs to up foreign visitor numbers. But it appears unfair to lay all the blame for the lodge sector’s woes on tourism bodies. Though Van Heteren agrees that tourism marketing is falling short he also believes there has been overdevelopment of lodges.

“The rich have hijacked the lodge market,” Van Heteren says. “They have thrown money at developing lavish, five-star lodges. The result is that the market is overtraded by look-alike boutique hotels in the bush.”

Evans agrees. He says many people buy a game farm for their own use and then realise that it is extremely costly to run. They then open a game lodge hoping to cover costs, not realising that it is not an overnight path to profit. “It took us 22 years to make our first profit out of a joint venture with the Botswana government,” he says.
Even a concession in a game park is not a route to quick riches. "Our concession costs us R1m/year," says Van Heteren.

Evans also criticises the lodge sector’s look-alike nature. “Most focus on taking visitors on photographic game drives,” he says. “That’s no different from what we began doing 50 years ago. Innovative thinking is needed.

“Increasingly, people want adventure tourism,” he says. A few lodges are moving away from stereotyped game drives by offering game viewing using horses, quad bikes and even elephants.

Van Heteren sees European visitors as the key to the lodge sector’s recovery. “It looks like Europe’s economy will take another two years to recover.”

Evans takes a pragmatic view. “Some lodge owners will leave and buyers will pick up bargains. But the animals aren’t going to go away.”
Game Industry Employment

**Employing more than 100,000 people in rural areas**, SA’s private game ranches have emerged as a key stabilising factor in an agricultural industry that has shed more than 300,000 jobs since 1994.

Conversion of traditional livestock farms to game has also produced another benefit. In a 2006 study the National Agricultural Marketing Council (NAMC), a statutory body, found that **cattle farms converted to wildlife create 3, 5 times more jobs at wages 5, 7 times higher**.

**Private game reserves focused on ecotourism** also play a key role in rural job creation. Though fewer in number — about 700 compared with more than 9,000 game ranches — they are more labour intensive. **A game lodge employs three staff members for every bed**, says Jan van Heteren, owner of two lodges in the Madikwe game reserve.

“Lodges also continually train and uplift their staff to better positions,” he says.

Indicative of broader private game reserve employment, Mala Mala director David Evans says the eight private game reserves making up the Sabi Sands complex on Kruger National Park’s western border employ 1,200 people. The reserves cover 65,000ha. SA National Parks’ (SANParks) 20 reserves covering 4mha provide 10,300 jobs, excluding private lodge concessions.

Direct employment must also be seen against the benefits to the broader community. **“Every job supports about 10 people,”** says Colin Bell, a game industry consultant.

But despite the employment opportunities the private game industry brings, it remains dominated by white capital and expertise, a problem the industry readily acknowledges.

Wildlife Ranching SA deputy president Gert Dry has a potential solution based on conversion of 12mha of communal land into multi-purpose game ranches. “We have the skills, experience and desire to help emerging farmers,” says Dry. “With a little help and support, newly settled farmers can become successful game ranchers.

“We already have an indication from SANParks that surplus animals from national parks could be made available for emerging farmers or communities who wish to establish game ranches.”

Another **challenge is to attract black people into conservation**. “Natural sciences are not a favoured field among local black people,” says Wouter van Hoven, professor of wildlife management at the University of Pretoria. “There is a far greater interest in the social sciences.”
But at ground level progress is being made, says Cleve Cheney, a senior lecturer at the SA Wildlife College, which trains game industry students from the 15 member states of the Southern African Development Community. “About 95% of the college’s students are black and already involved in conservation,” says Cheney. Disciplines being followed include wildlife management, field ranging and hospitality.

Black students will also be well in the majority in a two-year professional hunting diploma course (launched in July 2012.) “This will be a first in SA and will improve the reputation of professional hunters in SA,” says Cheney.

Getting buy-in from rural community youth is also vital. “To most rural communities a game reserve is just something on the other side of a fence,” says Evans. A key initiative to address this, he says, is a programme to educate rural children on the importance of conservation that is yielding excellent results. It is known as “Children in the Wilderness”. In three years, more than 4,000 children have been through the programme.

Providing the final word on the need for buy-in into the wildlife industry by all South Africans, the NAMC noted in its study: “Much of SA’s agricultural land is semi-arid and marginal and is better suited for wildlife ranching than for traditional agriculture.”

This indicates the promotion of wildlife ranching, as opposed to traditional farming, could be a way to alleviate rural unemployment as well as play a part in addressing the issue of bringing more black people into agriculture.
It is estimated that there are currently around **10 000 game ranches** and more than **4 000 mixed game and livestock** farms registered in South Africa, with an **additional 6 000 unregistered farms and reserves**. These cover some ± 25 per cent of the country’s total land area, compared with 6 per cent for all officially declared conservation areas. The national parks in South Africa cover only 3 per cent.

Many of these game ranches operate on meagre profits, and some even at a loss, as their part-time owners subsidise the ranches from other sources of income. Often their **operations are too small** (either in terms of land size and/or the sustainable utilisation of game stock) or not attractive enough to focus on eco-tourism.

Even larger game ranches will battle to earn the equivalent of the risk-free rate in the money market today, because land prices are generally too high and game selling prices too low. Over time the market may adjust, particularly **because the product offered by game ranches in southern Africa is unique in the world**; including biological, ecological, ecotourism and financial elements.

For instance, game needs veterinarian support (which is the case even in the large national parks). The ecological aspects include the hunting of surplus animals (or their capture for live sales at game auctions), whereas ecotourism involves viewing game and managing game lodges. All these facets have **financial implications**.
Successful game ranching requires a **holistic and diverse approach**, encompassing all these facets. This essay deals primarily with the economics and business ethics of game ranching. Consequently, it pays attention to the game management aspects that have financial and ethical implications. For example, much can be written about the population dynamics of specific animal species, but in the context of finance it is particularly important to concentrate on such issues as the **minimum ranch size required for specific game**; the purchase and selling prices of game; the additional expense of fencing to ensure that large and dangerous animals remain inside a dedicated area; or infrastructure issues such as water provision, roads, lodges and/or hunting camps, abattoir facilities, 4x4 vehicles and housing.

All these financial issues have **ethical implications**. The incentive to “buy low and sell high” on every transaction may well improve economic efficiency, but such opportunistic behaviour will be at the cost of social efficiency and ultimately result in a totally amoral attitude to nature at large. Unfortunately, for some ranchers the philosophy of maximising utility has resulted in an economic orientation in which morality no longer has a place and where their philosophy of life is restricted to the concept of “profits”.

Obviously, it is no easy task to balance profit with honour, and this clearly involves more than the simple saying, **“if it pays, it stays”**. The type and quantity of game that a particular area can sustain depends on ecological factors such as climate, soil types and vegetation. These ecological factors are many and varied. Nearly 70 areas with different vegetation types have been identified in South Africa.2

In any of these areas, there may be “hot spots” **able to sustain a particular game species or even a higher quantity** of game than the area in general. By contrast, some spots may only sustain a lower quantity of game or not be able to sustain a species.

To simplify the overall analysis, five ecological regions are demarcated in this course, namely the:

- **Grassland**
- **Lowveld**
- **Bushveld**
- **Kalahari and**
- **Karoo regions**

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1. Including farms with “exemption”. When land is properly fenced in for game-keeping, the owner may be exempted from all the provisions of the Ordinance applicable to the hunting, catching or selling of game.

The **Grassland region** is defined as the higher inner plateau and mountains with a rainfall ranging between 500 and 800 mm per annum, dominated by various types of grass, with very few shrubs and trees.

**Savanna** is characterised by a grassy ground layer and a distinct layer of trees and is divided into the **Lowveld, Bushveld** and **Kalahari regions**.

The **Lowveld region** covers the low-lying savanna areas east of the northern Drakensberg escarpment, including the Kruger National Park, with a rainfall of between 400 and 600 mm per annum.

The **Bushveld region** refers to the savanna areas in the northern parts of South Africa, west of the Drakensberg escarpment, including the upper Limpopo valley, where the rainfall varies from 300 to 600 mm per annum.

The **Kalahari region** is an arid savanna area, with a rainfall of 200 to 400 mm per annum.

The western parts of the **Karoo region** are a semi-desert area with a rainfall mostly below 200 mm per annum.

Each of these five regions is analysed in terms of **small, medium and large game ranches**. Consequently, a financial sensitivity analysis is done for 15 different types of game ranches. The approach in this essay is taken along the following lines. The first four Components concentrate on the cost of starting and running a game ranch. This involves broad issues such as:

- A comparative evaluation of livestock farming versus game ranching (Module # 7 Component # 1)
- The typical expenses involved in buying land, erecting fences and stocking up with game (Module # 8 Component # 1)
- The normal current expenditure items confronting the owner of a game ranch (Module # 8 Component # 2)
- And the type of infrastructure required for eco-tourism (Module # 8 Component # 3)

**The aim of these Components is to determine the economic viability of game ranches of various sizes and in different regions.**
Module # 8 Component # 4 concentrates on the profitability trends in game ranching by paying attention to economies of scale.

Module # 8 Component # 5 focuses on the identified profit drivers in game ranching, such as animal selection, critical mass, economies of scale and scope, and land prices.

Module # 9 Component # 1 gives an overview of the various advantages of conservancies.

Module # 9 Component # 2 deals with the issue of the selective breeding of rare (and expensive) animals. The aim of this Component is to optimise income from breeding, subject to predetermined constraints such as animal prices and types of game habitat.

Module # 9 Component # 3, deals briefly with the business ethics of game ranching, i.e. the trade-off between profits and honour. Like any other business activity, game ranching has its own specific ethical issues. For instance, is the hunting of “canned” animals morally justified and to what extent does this differ morally from the supply of meat from livestock? Profitable business does not necessarily mean good (honourable) business, but where should the ethical line be drawn? Is the unexamined life, even in the bush, not worth living?

Map of ecological regions used for the analyses and optimisations

The areas left white on the map represent ecological regions which are not covered in this booklet, e.g. desert, fynbos, coastal bush and evergreen forest.
The Problems of Traditional Livestock Farming

Sub-Saharan Africa is among the poorest agricultural regions in the world. The total value of agricultural output per hectare is $69 in sub-Saharan Africa compared with a world average of $266 per hectare. Apart from poor soil and low rainfall in general, livestock farmers in South Africa have also been confronted with sweeping structural challenges for more than a decade. A few of the more visible changes of late are as follows:

- The deregulation of the agricultural sector resulting in lower, but also more competitive prices.
- The decline in farmers’ political power base in Parliament since the early 1990s.
- Increased land claims.
- The dramatic increase in stock losses owing to theft in recent decades.
- The impact of Aids and the re-emergence of malaria.
- Increased bush encroachment (often as a result of overgrazing which, in turn, reduces the frequency of veld fires).
- The increasing cost of controlling cattle diseases.
- Last, but not least, the impact of global warming.

All these changes are largely of a structural nature, implying that the farming community has had to make fundamental adjustments. In the case of cyclical changes, farmers may cope by sitting tight for a while, for example, by falling back on their capital reserves, diversifying their risk exposures and by taking a long-term view. By contrast, structural changes may require a total reconsideration of current livestock production methods and the weighing up of alternatives. Game ranching happens to be an economic alternative for livestock farmers, especially in savanna areas.

Before concentrating on game ranching as such, it may be useful to highlight in somewhat greater detail why farmers, particularly those in a marginally profitable business, have had to review their traditional business.

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1 Europe takes the lead, with an output of some $1 000 per hectare.
The deregulation of the farming sector

In line with world trends towards liberalising markets, the agricultural sector is increasingly being subjected to free market forces. The World Trade Organisation (WTO) aims at a drastic reduction in all export subsidies and import levies for agricultural products. Although this aim will take some time to achieve, clearly there is pressure on the agricultural sector worldwide to improve productivity and to become less dependent on government support in its various forms.

The South African government is following this trend. As a result, the real input and output prices of the agricultural sector are adjusting structurally.

The loss of political leverage

Traditionally, the agricultural sector in South Africa, through its rural vote, wielded considerable power in Parliament. After the transition to a full democracy in 1994, this political leverage was wiped out suddenly and completely. The government not only became fully representative, but the constituency-based voting system was replaced by a proportional representation system. Before 1994, the agricultural lobby was backed by nearly a third of the members of Parliament – today the support is well below 10 per cent. The increased number of successful land claims prosecuted through the courts, is only one reflection of the new political winds of change that are blowing through the Platteland.

The impact of new labour legislation

From the beginning of organised agriculture in South Africa in the 17th century, the socio-economic position of the non-white farm labourer hovered between outright slavery and a sub-economic existence. It was partly this source of cheap farm labour that made sheep and cattle production viable in the past. Traditional labour relations are changing rapidly and fundamentally. For instance, issues such as dismissals, sick leave and maternity leave, paid holidays and retirement provisions are regulated in terms of the Basic Conditions of Employment Act (No. 75 of 1997). This Act will fundamentally change the way business is conducted on farms in the years to come. Many farmers may need a refresher course in labour relations or even psychological assistance to cope with such fundamental changes in their day-to-day activities.
The impact of Aids and malaria

Like its northern neighbours, the South African agricultural sector is being badly affected by HIV/Aids. The cost of the pandemic is felt in areas such as:

- the lower productivity of HIV-infected farm labourers;
- the loss of skilled labour;
- increased absenteeism;
- long-term sick leave for Aids patients;
- increased leave for burials; and
- less buying power in the rural communities.

Besides HIV/Aids, malaria is once again becoming a major natural disease, impacting on much of the Lowveld, Bushveld and the subtropical coastal areas of southern Africa. Malaria not only affects the local population but also discourages foreign tourists from choosing Africa for a carefree and healthy holiday.

Stock theft

The maintenance of law and order in rural areas has not become easier for the South African Police Service in the past few decades. Poverty, unemployment and large inflows of illegal immigrants from other African countries have undermined the security of herds of cattle and flocks of sheep in certain areas, and illegal slaughtering has become prevalent. Most farmers are no longer willing to run their animals along the major roads or near the borders of neighbouring states because grazing in these areas endangers the security of their livestock. Some part-time farmers are even selling all their livestock and switching to alternative farming activities.

The costs to livestock farmers accrue on various fronts: firstly, the expense of replacing stolen livestock; secondly, the expense and effort involved in increased policing; thirdly, the under-utilisation of vast tracts of land because these territories are considered too risky from a security perspective; and fourthly, the cost of changing to alternative farming activities (often at a lower profitability) if all the above fail.
Bush encroachment

Overgrazing and the resulting degradation of the veld have resulted in denser bush in certain areas. In the past, periods of severe drought have also contributed to this phenomenon.

Because of bush encroachment, the economic carrying capacity of cattle farms, in particular the smaller farms, has declined. Bush encroachment has a more severe impact on cattle farming than on game ranching: cattle are grazers whereas game species include grazers, mixed feeders and browsers.

Livestock diseases

Livestock, especially cattle, in the Bushveld and Lowveld areas are exposed to many diseases, often tick borne. Disease control, such as for foot and mouth disease, is a costly exercise in many cases.

Cattle farming is no longer as profitable as it used to be. Global competition and reduced subsidies have forced livestock farmers to race to the market – with artificial insemination at the beginning and overly protein-rich feedlots at the end of the production line. In fact, cattle cannot easily digest proteins beyond the tiny amounts consumed by microbes in their first stomach. Yet, for the sake of rapid weight gain, cattle are given steroids and fed with overdoses of protein, including, until recently, processed animal offal. Thus, cattle in feedlots are in permanent danger of bloat, chronic diarrhoea and acidosis, which disrupt their immune systems. Without an ongoing regime of veterinary interventions and large amounts of antibiotics, cattle in feedlots would soon die of these diseases. Mad cow disease (Bovine Spongiform Encephalopathy or BSE) is only one consequence of feeding animal proteins to herbivores.

Besides BSE, other illnesses may also strike cattle, such as foot-and-mouth disease, swine fever and bovine tuberculosis. Domestic animals have been shaped by human selection, in which health has not been a primary concern. When cattle are sick, the choice is therefore often between even more drugs or immediate slaughter. This contrasts sharply with wildlife, which has a far higher resistance to disease owing to natural selection. Instead of breeding health back into the equation, today’s government policy for foot-and-mouth disease still comes down to culling, whether or not the animal succumbs to the virus.

2 During wet periods the grassland conditions improve, limiting bush encroachment. In some areas, controlled fires are used for limiting bush densification.
The consumer’s reaction to all this has been a major cutback in meat consumption. It is still an open question to what extent it is possible to depend on factory farming techniques without becoming a factory consumer. Food cannot be cheap, local, green, safe and varied, all at the same time. The current switch to higher fish consumption will only be temporary, as the oceans are already heavily overfished. More organic farming techniques worldwide (with lower yields at higher costs) and the transformation of more cattle farms into game ranches in southern Africa could be partial solutions to these problems.

Global warming

South Africa is a dry country. Internationally, areas that receive less than 500 mm of rain per annum are considered semi-arid or arid. More than 60 per cent of South Africa’s total land area receives less than 500 mm of rain, with about 20 per cent receiving even less than 200 mm per annum. The effect of global warming will probably increase the unpredictability of localised wet and dry periods.

The aridity of the country is clear when compared with other countries. On average, farmers can harvest 2.3 tons of maize per hectare in the favourable parts of the Free State, compared with 7.9 tons in the United States of America.

Alternatively, in the best natural cattle-grazing areas of South Africa, one large stock unit (abbreviated as LSU, which is the equivalent of a steer of 450 kg) needs 4 hectares of grazing land per year on a sustainable basis. This compares with 1.5 LSUs per hectare (or 0.67 ha/LSU) in, for example, New Zealand. In short, the dry and unpredictable climate, large areas with sandy infertile soils (sourveld) and tick-borne diseases, make it difficult for South African livestock farmers, without subsidies and import protection, to compete with farmers abroad.

According to the latest findings of a UN-sponsored International Panel on Climate Change (IPCC), the planet could heat up by between 1.5°C and 6°C during this century, with severe consequences for farmers. As the average temperature of the globe is about 15°C today, a mean rise of 3.5°C is indeed significant. Already the ice at the north and south poles is melting rapidly, causing not only rising sea levels but also the warming of the oceans. In September 2010, a huge chunk of ice broke off Greenland’s Petermann Glacier. It’s not an iceberg, it’s an ice island, 4 ½ times larger than Manhattan. The global climate is likely to become even less predictable than in the past. Southern Africa has felt the painful effects of El Niño during the past decade: severe droughts followed by major flooding.

Higher temperatures impact particularly on insect life, hence the higher incidence of diseases such as malaria, which may now affect agricultural areas that were not affected in the past. Moreover, the warming of the Indian Ocean in the past decade has already destroyed most of the coral reefs around Indian Ocean islands and southern African shores. Clean river water is also becoming a scarce resource. Today, roughly 40 per cent of the world’s food comes from the 5 per cent of agricultural land that is irrigated.
Key statistics on farming in South Africa

- The number of commercial farmers has dropped to some 50,000. This is the lowest level for more than a century.

- Less than 20 per cent of the farmers are younger than 34, while 40 per cent are older than 50. The industry faces a serious lack of experienced management.

- Close to 70 per cent of farmers have an annual turnover of less than R1 million. The majority are small-scale farmers, who are usually grossly under-capitalised in this capital-intensive industry.

- The debt-to-income ratio in agriculture is currently at an all-time high of 38 per cent. Bankruptcies are bound to rocket if this ratio rises.

- Net earnings in agriculture have dropped from R110 per hectare in 1990 to about R80 per hectare in 2000. In real terms, the drop in net farming income was some 5.3 per cent per annum in the past decade.

- About 11 per cent of farmers are part-time farmers (defined by the fact that they earn more than 50 per cent of their operating income outside agriculture).

- More than half of the total numbers of farmers are engaged in mixed-farming activities to reduce their risk exposure to a volatile market and extreme climatic variations.

- Environmentalists are increasingly frowning on farmers’ chemical-intensive monocultures because they drive out biodiversity, and exacerbate soil degradation as well as pollution.

- The effective agricultural subsidy in South Africa is about 4 per cent, compared with 1 per cent in New Zealand, 45 per cent in Europe and 53 per cent in Japan.
The Rising Importance Of Eco-Tourism in Game Ranching

One possible answer to the above-mentioned problems may be to convert from livestock farming (in marginally profitable and low rainfall areas) to game ranching.

Although South Africa is a dry country, it teemed with wildlife in previous centuries. The over-exploitation of these animals and the introduction of commercial livestock farming caused their numbers to dwindle. However, the monetary value placed on wildlife during the past decades has led to a dramatic increase in their numbers. Wildlife is better adapted than cattle to the African environment, and in years to come, eco-tourism is likely to be one of the better economic performers as well as a potentially large earner of foreign exchange.

Game ranching is also far less dependent on unskilled labour than livestock farming, and in addition, game is more difficult to steal than cattle and sheep. Wildlife promotion is politically attractive in that it supports the international goal of achieving a "sustainable living planet". Last, but not least, eco-tourism creates more job opportunities for skilled and semi-skilled labour.

Not surprisingly, many farmers are currently actively restoring their cultivated land to planted pastures (grass), or leaving it to return naturally to a habitat for game through the process of plant succession. Some estimates place the area of land that has been transferred back to nature at about 20 million hectares. This will contribute to the game industry because the underlying demand for both hunting and game viewing is so large.

To ensure game ranches of sufficient size, increasing numbers of farmers are considering the creation of conservancies. The main aim of a conservancy is to remove the internal fencing between adjoining ranches and farms. Conservancies usually have an umbrella legal agreement, which pulls together different agreements covering management items such as usage of game, land ownership and tourism (see Module # 9, Component # 1 for more details).

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3 Based on a 1999 UNCTAD survey of 44 African investment promotion agencies, tourism tops the list of the industry’s most likely to attract foreign direct investment in future.

4 A conservancy can be defined as a group of adjoining private commercial farms operating under a co-operative management agreement based on a shared common goal, such as to conserve and enhance the biodiversity of the ecosystem and to realise its full economic potential on a sustainable basis.

5 South Africa currently has some 90 000 km of game fencing on private property, which impacts adversely on the game’s welfare and its natural migration. Land ownership laws are a major determinant in this context. For example, in contrast to the communal land ownership traditionally found in Africa, individual land ownership rights imply the dividing of land into blocks. Conservancies try to overcome these inherent limitations of individual land ownership to the benefit of game conservation.
In the Lowveld and Bushveld, but not as easily elsewhere in South Africa, **profitability can be increased if game ranches move from hunting to eco-tourism**. Natural predators, such as lion and leopard, are not only good and relatively cheap “game wardens”, but are also particularly attractive to eco-tourists. Hunting is advised – in fact it is inevitable – on all game ranches where the “Big Five” (buffalo, elephant, leopard, lion and rhinoceros) cannot move around freely.

In terms of economics, the **value of game ranching** can be summarised as follows:

1. Game ranching works essentially on four levels. The first level is the **sale of hunting trips and venison** (a low cholesterol, low-fat protein alternative for which the market, both locally and internationally, has hardly been tapped); the second level is the **sale of live game** at auctions and the translocation of these animals; the third level is the **processing of animal products**; and the fourth level is the **providing of game lodges**, conference facilities and related services. Job opportunities open on all four levels.

2. The eco-tourism industry accounts for at least **R2.5 billion**. Its indirect multiplier effect (in industries such as airlines, taxidermy, 4×4 trails, outdoor equipment and hotels) is of a roughly similar size, which implies that the total turnover in this market segment is about R5 billion. There is a **huge potential for future growth in eco-tourism on game ranches**, mainly because its market share of the total tourism industry is relatively small in South Africa.6 Not surprisingly, the game-ranching industry has been expanding at a rate of about 5 per cent per annum in real terms during the past decade.

3. The percentage income derived from auctions, hunting and eco-tourism (game viewing or leisure tourists) **differs widely between the different regions** and depends on distance from the big cities and the availability of the Big Five. In the distant Bushveld, for example, about 60 to 65 per cent of the total income from game ranching comes from hunting (trophy and venison hunting), 5 to 10 per cent from game viewing and the balance from the sale of live game at auctions.

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6 The total value of tourism (including business travel) in South Africa was about R45 billion in 1998, or 6 per cent of nominal gross domestic product (GDP), which compares with a world average of about 11 per cent of GDP. The local tourism industry directly employs about 600 000 people, and its multiplier effect in related industries (e.g. food and beverage suppliers, fuel and electricity suppliers, and wholesalers) adds another 500 000 jobs.