



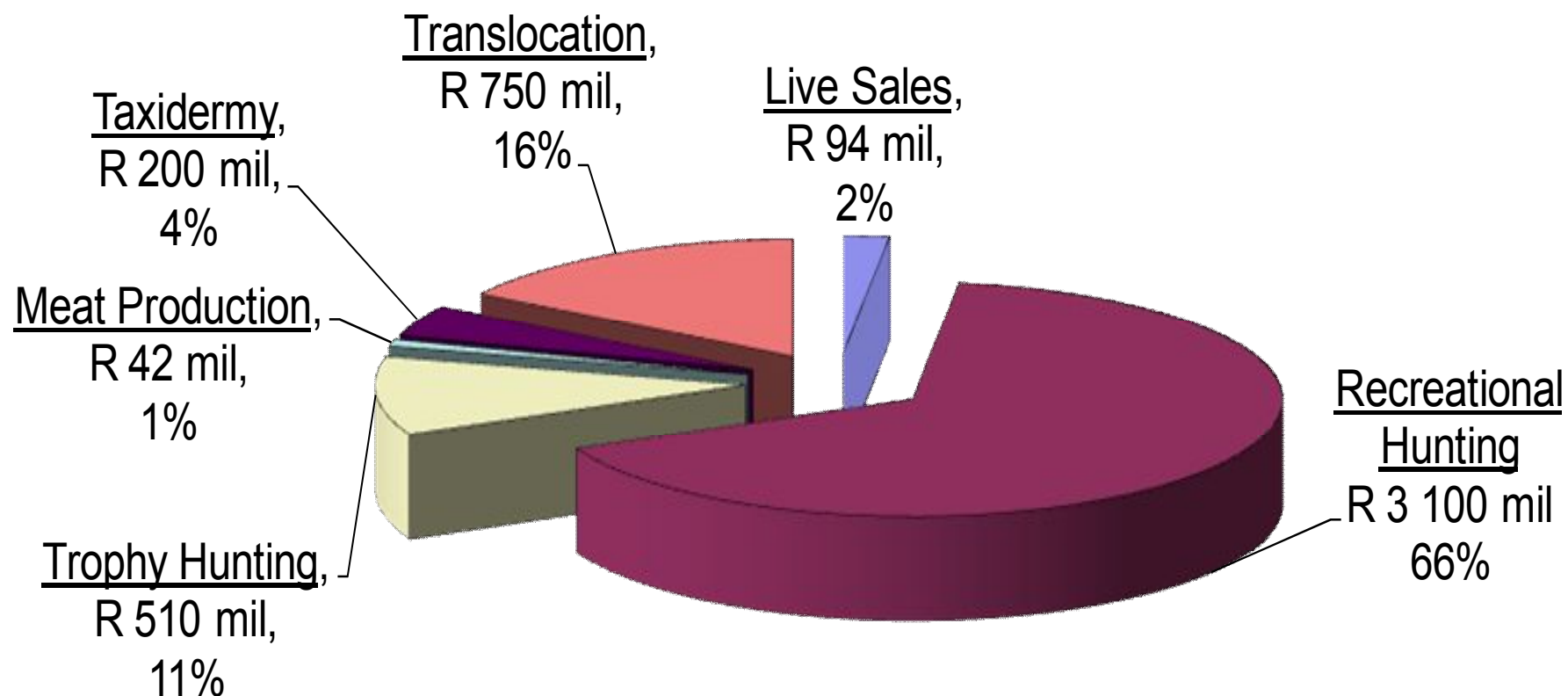
Diversifying your product to
incorporate the breeding of wildlife

Introduction – Reasons for rapid growth of wildlife industry since 1990

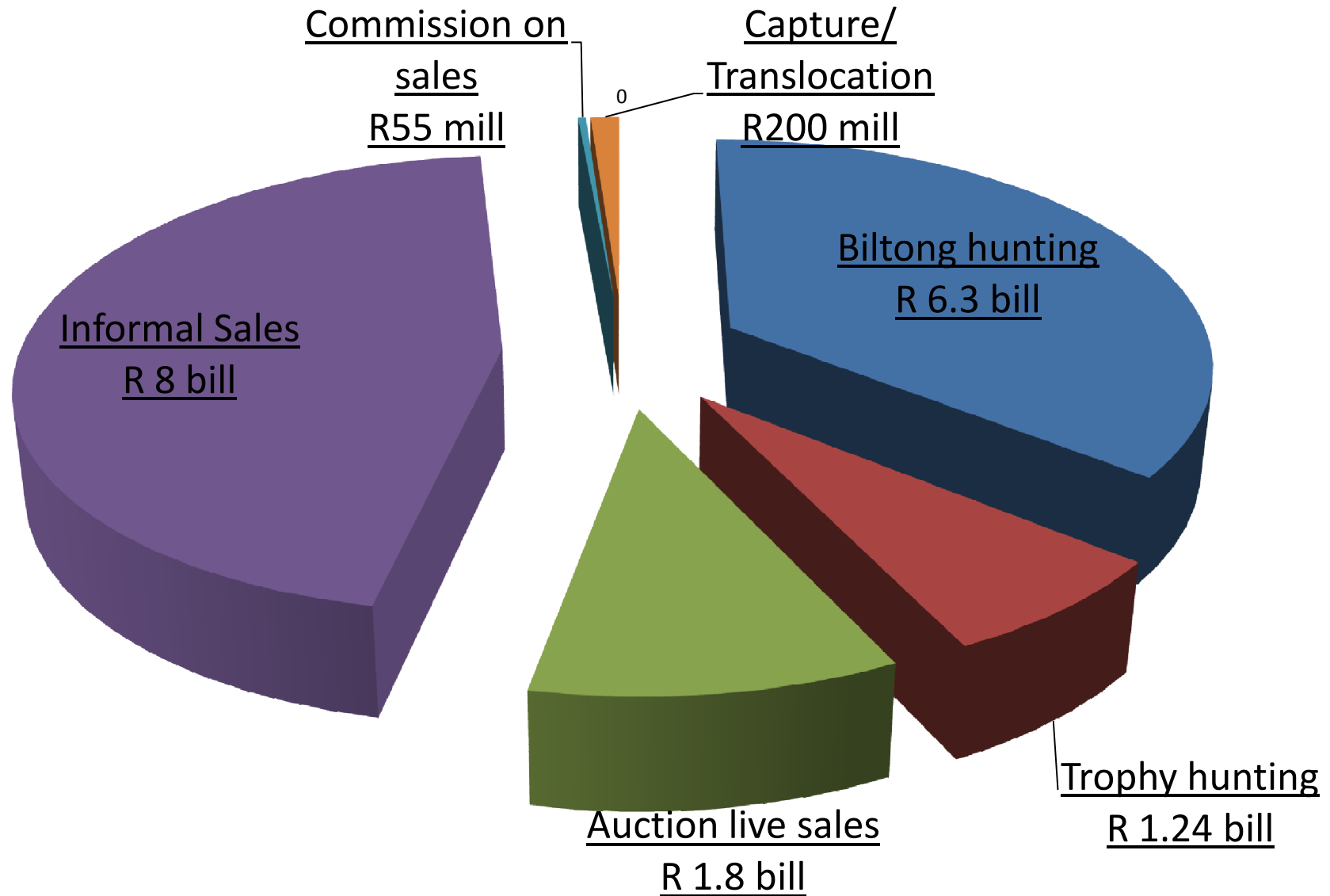
- The Game Theft act No 105 of 1991 – Grants ownership to landowner
- Globalisation in the form of trade liberalisation make it hard for commercial/agriculture farmers – sheep, maize, beef, chicken etc
- Deregulation of agriculture sector, weakening of financial support from government, labour, climate change, land reform
- These led to pioneer of private game ranching “experimenting” with alternative land-use options in the form of wildlife on marginal ground
- Greatest agricultural transformation in the history of SA and now largest privately owned wildlife industry in the World.
- Wildlife is unique to Africa and only conserved successfully in Namibia and South Africa
- Return on investment is equalled by none
- This led to numerous investment opportunities privately and in partnership
- Interesting to note that 40% of investors in wildlife own plains game and only 30% invested in High value rare wildlife (Roan, Sable and buffalo)
- Scope for diversifying is extraordinary – Hunting, Tourism, Meat and Breeding

Wildlife industry 2005 (R4.696 bill)

Stats by NW University 2005



Wildlife industry value 2015 (R17.595 bill)



History

Sable: January 1987 Sable were sold for a world record price of R7000
Oct 2008 A Sable bull was sold for new world record of R3 mil
2012 Sable bull Charlie sold for R12 mil
2013 Heifers sell for R250 000 – R300 000
2015 Sable bull sold for R27 mil (Mopanie)

Roan: January 1987 Roan were sold for R14500
August 2008 Roan were sold for R130 000
2012 Roan heifers sell for R200 000
2013 Roan heifers sell for R350 000 (new SA record)
2015 Roan bull sold for R9.5 mil (Hennesy)

Buffalo: Heifers in 1996 sold for R50 000
2013 Avg price of R300 000 for females
Bull sold for R18 mill and R40 mill (Mystery)
Cow sold for R20 mill
25% share in Horison sold for R44 mill
Sept 2016 Inala sold for R168mill

From 1987-2013 Roan and Sable escalated an average of 57% per year.

Factors to consider before diversifying into wildlife breeding

- Which pillar to develop – breeding, hunting, wildlife tourism or game products
- Size of property earmarked for breeding of wildlife and type of breeding project – Extensive, semi intensive, intensive, granny camp
- Capital available
- Species



Breeding – Animal husbandry

Strengths

- No need for scenic beauty
- Small sizes are suitable
- Contributes to conservation through best genetics and numbers to possibly supply rest of Africa in future
- Source of foreign exchange
- Leads to developments and spin offs in pharmaceuticals, feed industry, insurance, capture and land reform

Weaknesses

- High entry capital
- Negative impact on disease outbreaks and creates resistance to certain drugs
- Perceptions of domestication, genetic manipulation and weaker specimens
- Selection only for certain traits
- No clearly defined end-user especially for colour variants



Hunting

- 200 000 active biltong hunters in SA spending R6.3 billion.
- Between 5000-6000 trophy hunters visit SA annually spending R1.24 billion



Opportunities in Hunting industry

Sable and Roan Cow bought at R300 000

Bulls hunted for 25% of cows value

This is a 6 year projection

Year	0	1	2	3	4	5	6
Calves produced		f	m	f	m	f	m
		100%	25%	100%	25%	100%	25%

- At year 6 a bull is hunted at 25% of cows value
- At year 5 another cow is giving 25% return in bulls
- At year 3 another cow is about to give 25% return in bulls
- So every cow is 100% return on investment and will in turn supply 25% in bulls and 100% in cows
- Classic example is a Kudu cow at R2000 breeding hunting bulls at R12000 at 6 years.

Wildlife tourism

- Game drives
- Bird Watching
- Lodging
- Wildlife encounters
- Photographic safaris
- Adventure activities – Hiking, 4x4, canoeing



Game products

- Meat production for local and international market major growth area
- Market will become saturated by “cheap” bulls and foundation or split animals used for breeding colour variants
- Perceptions of consumers will change with regulations as the wildlife industry starts shifting their focus
- Price and availability remain constraints
- Health benefits and organic movement will boost image



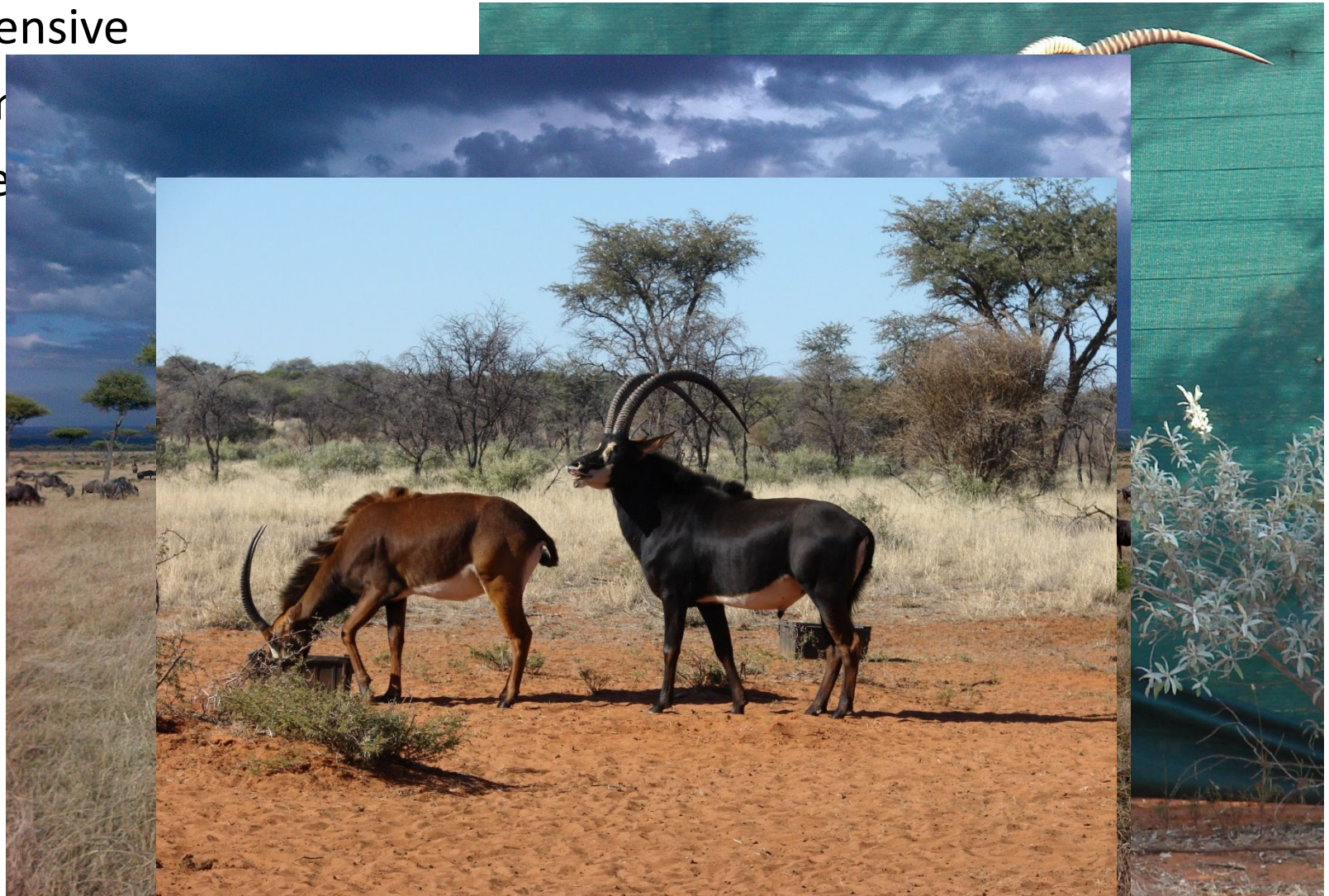
Size of property earmarked for breeding of wildlife and type of breeding project

- Most important factor - Select best area for most valuable species
- Grazing, Browsing, shelter, water availability, neighbours
- Shape of camp
- Determine carrying capacity and develop camps in relation to the LSU.
- Size of property should determine number of females per specie.
- Decide on camp system –Intensive (smaller than 100ha camps)
- Semi-intensive (larger than 100ha with supplementation and multi-specie)
- Supplementation assisted by water analysis



Type of breeding project

1. Extensive
2. Semi
3. Intensive
4. Grazing



Extensive – Multispecies approach

Most ideal scenario



j. Less of a fire danger

Intensive to semi-intensive systems

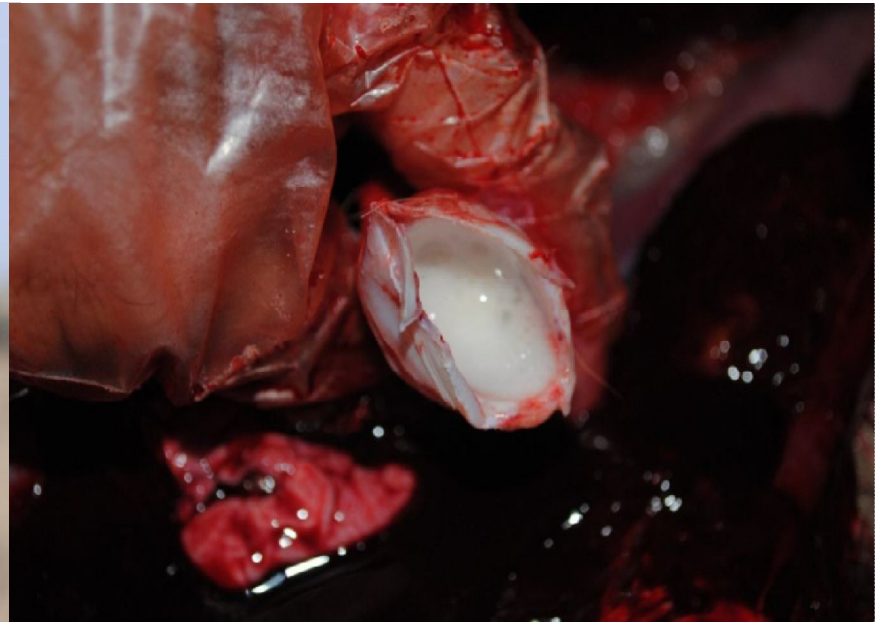
Disadvantages of intensive system

Nutritional deficiencies – Cu, Co, Se



Nutritional imbalances – Imbalance
between roughage and game cubes causes:

- i. Shipping fever (B12+6)



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- ii. Cerebral Cortical Necrosis
- iii. Accidosis – Gradual changes in diet



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iv. Traumatic Pericarditis



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v. Botulism



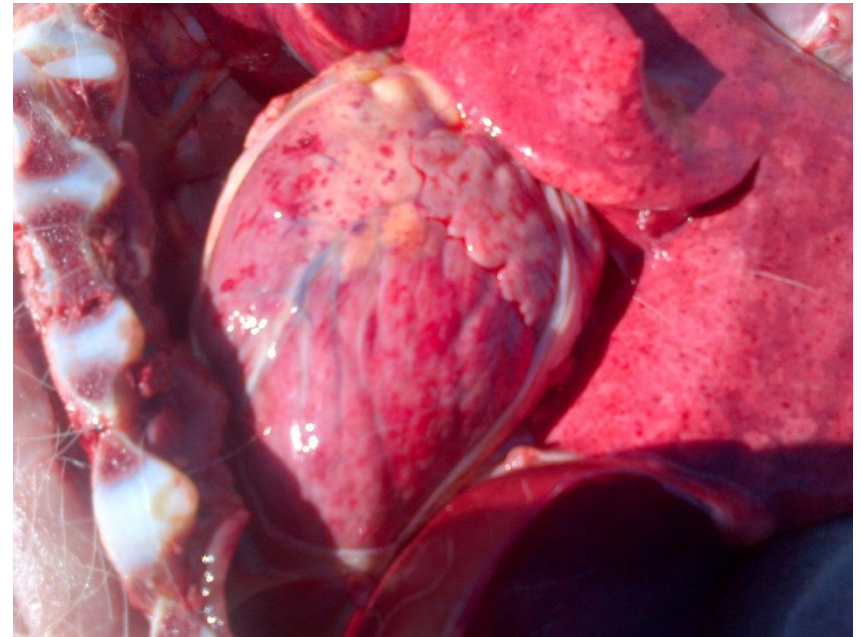
Overcrowding if not stocked to correct carrying capacity

- Small territorium leads to fighting and injury
- Flight angle gets reduced to 90 degrees
- Stress increase especially in weaker animals



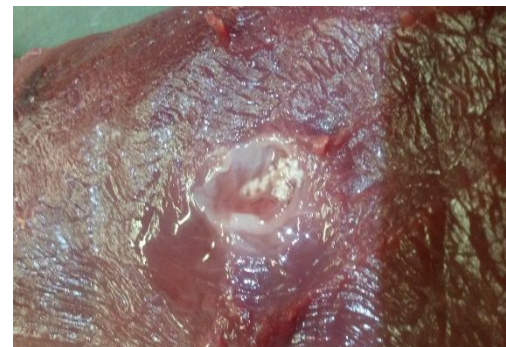
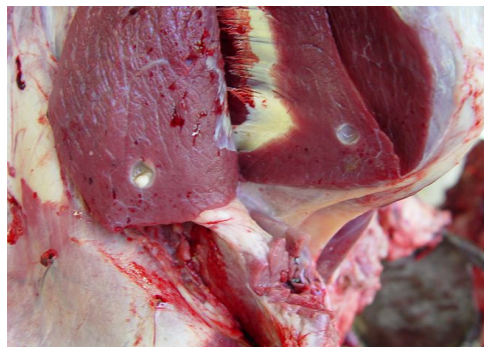
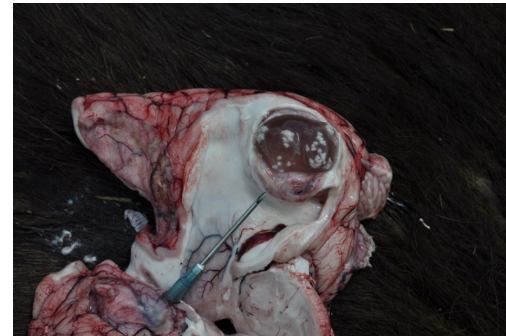
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- i. External parasites – Tick build up leads to toxicosis decreasing animals resistance to theileriosis



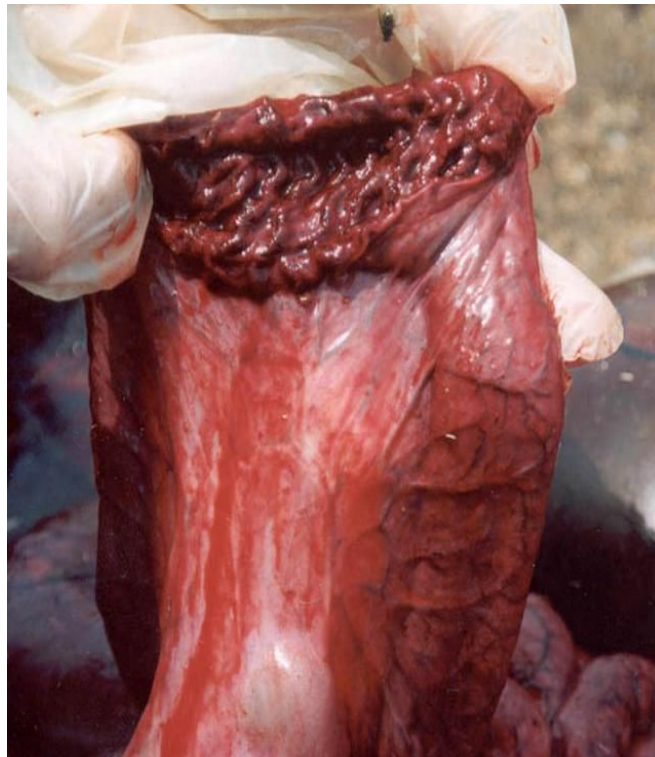
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- ii. Internal parasites – Resistance to Anthelmintics
- iii. Wireworm (Haemoncus Contortus) – Eg: Sable with 38000 eggs/gm
- iv. Tapeworm (Hydatid Cysts) – 15/20 Sable died from Coenoerus Cerebralis (Cycle between Dog/Jackal and Sable)



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- v. Coccidiosis – Leaking water troughs and overcrowding at water and feeding areas build up spores: Give boma animals Coccidiostats 2-3 weeks for 3 days at a time



Factors to consider in the Breeding of wildlife

1. Genetic diversity – Mixing different population groups within subspecies.
2. Importance of breeding season – Don't want calves in winter
3. Move young bulls 15-18 months to different camp



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4. For sustainable industry breed with correct amount of cows to have enough ground to keep all bulls for at least 5 years.
5. Quality instead of quantity – not only horn size!
6. Select for masculinity – Thick horn base, thick necks, good size testes
7. Medium sized cows are often the best breeders



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8. Bio-security (Brucellosis, Tuberculosis and Corridor disease recently tested on some game ranches)
 - i. Double fence against neighbours
 - ii. Separating buffalo herds to other camps on the ranch
 - iii. Do not mix buffalo and cattle herds (High Brucellosis risk)
 - iv. Immediately report illegal imports



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9. Fight or flight reflex – Helicopter, loading, feeding, bomas etc
10. Feeding procedures
 - i. Enough feeding troughs
 - ii. Space between at least 10m
 - iii. Supplement with enough roughage and small amount of cubes
 - iv. Competition at troughs can lead to injury



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11. Vaccination/treatment protocol
 - i. Supavax – Not for heavily pregnant animals
 - ii. Covexin 10
 - iii. Respirovax – Especially Roan
 - iv. Pasteurella – Especially Buffalo
 - v. Dectomax and deadline



Capital available

ROI from wildlife on land

Comparison of rare species vs commercial farming

- a) Livestock (eg: Cattle) $R6000/\text{ha} \times 12\text{ha}/\text{LSU} = R72\ 000$
-Avg of $R5000/\text{calve}$ if sold = 7% return on land investment

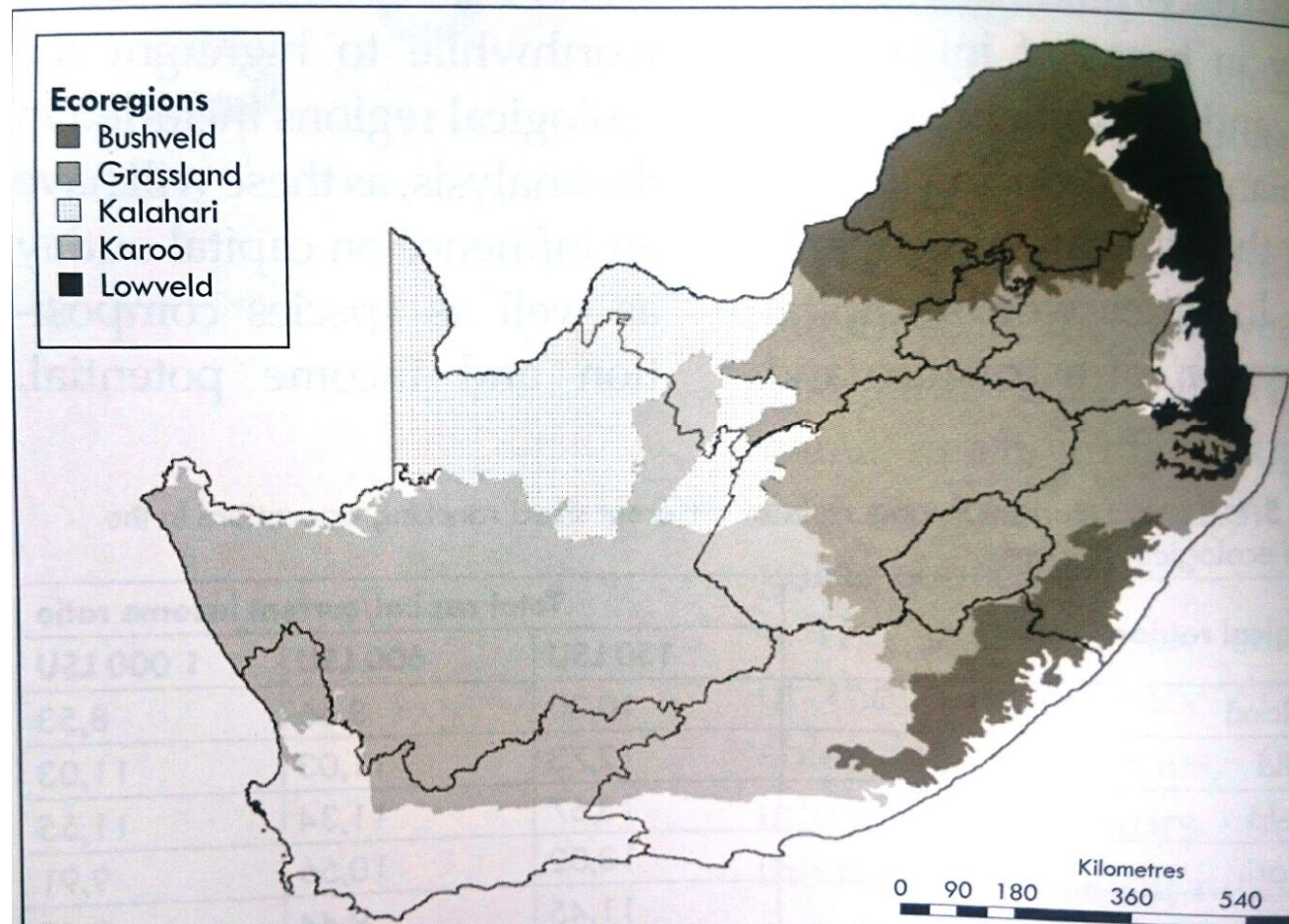
- b) Buffalo - $1,1\ \text{LSU} \times 12\text{ha}/\text{LSU} = 13,2\text{ha}$ needed per Buffalo
- $13,2\text{ha} \times R6000/\text{ha} = R79\ 200$ per Buffalo for grazing
-Avg of $R200\ 000/\text{Buffalo}$ if sold = 253% return on land investment

- c) Sable/Roan/Black Impala - $0,3\ \text{LSU} \times 12\text{ha}/\text{LSU} = 3,6\text{ha}$ needed per animal
- $3,6\text{ha} \times R6000/\text{ha} = R21\ 600$ per antelope for grazing
-Avg of $R200\ 000/\text{Antelope} = \underline{926\%}$ return on land investment

Species to farm with

- Check stocking rate and species distribution in the ecological regions – Kalahari, Karoo, Bushveld, Lowveld and Grassland

FIGURE 5.1: Ecological regions used in the analysis.



Species to farm with (Blue Chip shares)

- Roan
- Sable
- Buffalo
- Livingstone Eland (Cape King)
- Tsessebe
- Nyala
- Bontebok
- Lechwe























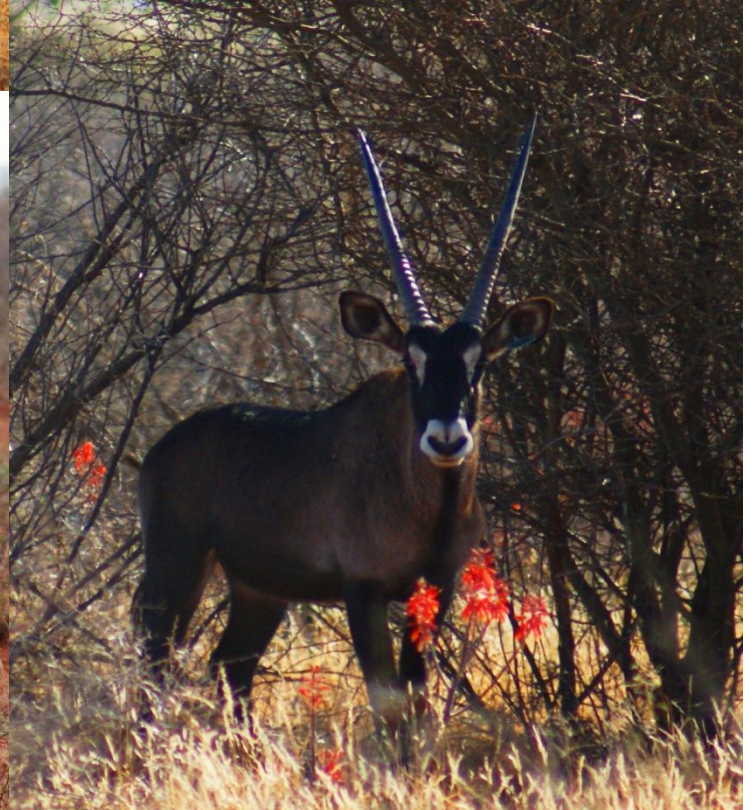


Colour variants (Penny shares)

- Golden, King, Ghost, Golden King Wildebeest
- Black/Saddle back/White flanked impala
- Oryx variant – Golden, Red/Royal, Saddleback, Black, Skilder
- Springbuck variant – Copper, Black, White, Coffee, Ivory, Machiato, Cream, Marula, Kings, Bont etc
- Blesbok variants – Yellow, White Saddleback, Copper, White, Apache, Masked, Black faced etc











Cattle on 3000ha

Income on R6000 000 investment (R10 000 x 600 cows)

600 Cows = 480 Calves @ R4000 = R 1 920 000

Expense

Rent	R 530 000
Vet	R 6 000
Labour and feed	R 240 000
Supplement and licks	<u>R 120 000</u>
Total	<u>R 1 024 000</u>

Profit **R896 000 = 14.9%**

Rare species on 3000ha

Income on R6000 000 investment (R350 000 x 17 Sable or Roan)

17 Cows = 8 Female Calves @ R300 000 = R 2 400 000

9 Bull Calves @ R20 000 = R180 000

Total income R2 580 000

Expense

Rent R 530 000

Vet R 6 000

Labour, feed, licks and

Supplements (R3000/cow) R 51 000

Total R 587 000

Profit **R1 993 000 = 33.2%**

If no animals are sold for 3 years the average increases to 61%/year

ROI in one year

Sable	MALE		FEMALE		TOTAL
	TOTAL	VALUE	TOTAL	VALUE	
INTRODUCTION COST	1	R600 000	9	R350 000	R3 750 000
PRODUCTION VALUE					
CALVES BORN	4.5	R25 000	4.5	R300 000	R1 462 500
TOTAL PRODUCTION VALUE (TURNOVER)					
LESS PRODUCTION COSTS - (20%)					-R 292 500
TOTAL RETURN					R1 170 000
RETURN ON CAPITAL EMPLOYED					31.20%

ROI in one year

Black Impala & Foundation Ewes	MALE		FEMALE		TOTAL
	TOTAL	VALUE	TOTAL	VALUE	
INTRODUCTION COST	1	R250 000	30	R1 000	R 280 000
PRODUCTION VALUE (All F1 Split calves)					
CALVES BORN	15	R 500	15	R30 000	R 450 000
TOTAL PRODUCTION VALUE (TURNOVER)					
LESS PRODUCTION COSTS - (20%)					-R 91 500
TOTAL RETURN					R 366 000
RETURN ON CAPITAL EMPLOYED					130.71%

ROI in one year

Nyala	MALE		FEMALE		TOTAL
	TOTAL	VALUE	TOTAL	VALUE	
INTRODUCTION COST	1	R7 000	9	R7 000	R 70 000
PRODUCTION VALUE (3 lambs every 2 years)					
CALVES BORN (1.5)	6.75	R4 000	6.75	R7 000	R 74 250
TOTAL PRODUCTION VALUE (TURNOVER)					
LESS PRODUCTION COSTS - (20%)					-R 14 850
TOTAL RETURN					R 59 400
RETURN ON CAPITAL EMPLOYED					84.86%

Roi in one year

Properties	PURCHASE FEE		TOTAL
INTRODUCTION COST	R 750 000		R 750 000
PRODUCTION VALUE			
RENT	12 Months	R7 500	R 90 000
TOTAL PRODUCTION VALUE (TURNOVER)			
LESS PRODUCTION COSTS - (20%)			-R 15 000
TOTAL RETURN			R 75 000
RETURN ON CAPITAL EMPLOYED			10.00%

Twelve year breeding projection

Roan and Sable @ R200 000 each

15-18 Months of age

1 males:6 females

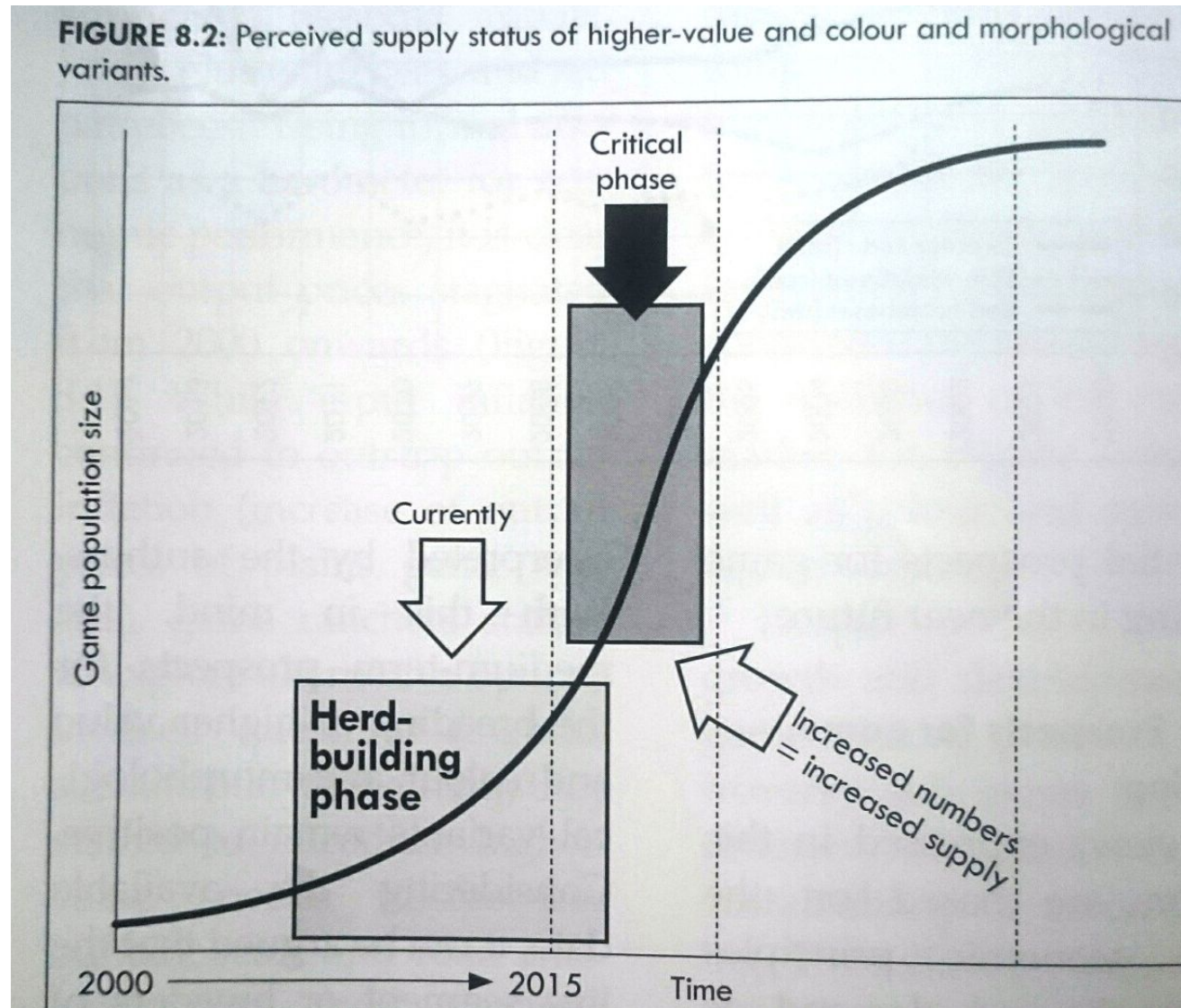
		<u>Adult</u>	<u>Adult</u>	<u>Calves</u>	<u>Calves</u>	<u>1/2 year</u>	<u>1/2 year</u>	<u>2/3 year</u>	<u>2/3 year</u>
<u>Year</u>	<u>Total</u>	<u>male</u>	<u>female</u>	<u>male</u>	<u>female</u>	<u>male</u>	<u>female</u>	<u>male</u>	<u>female</u>
0	7	1	6	0	0	0	0	0	0
1	7	1	6	0	0	0	0	0	0
2	13	1	6	3	3	0	0	0	0
3	19	1	6	3	3	3	3	0	0
4	25	1	6	3	3	3	3	3	3
5	34	4	9	4.5	4.5	3	3	3	3
6	46	7	12	6	6	4.5	4.5	3	3
7	61	10	15	7.5	7.5	6	6	4.5	4.5
8	82	15	20	10	10	7.5	7.5	6	6
9	108	21	26	13	13	10	10	7.5	7.5
10	143	29	34	17	17	13	13	10	10
11	187	39	44	22	22	17	17	13	13
12	244	52	57	28.5	28.5	22	22	17	17

<u>Debt</u>	<u>9% Compound interest</u>	<u>Total debt</u>	<u>Assets in animals</u>	<u>Asset growth</u>	<u>%Growth on initial investment</u>
R 1 400 000.00	R 126 000.00	R 1 526 000.00	R 1 400 000.00	R -126 000.00	-9.00%
R 1 526 000.00	R 137 340.00	R 1 663 340.00	R 1 400 000.00	R -263 340.00	-18.81%
R 1 663 340.00	R 149 700.60	R 1 813 040.60	R 2 600 000.00	R 786 959.40	56.21%
R 1 813 040.60	R 163 173.65	R 1 976 214.25	R 3 800 000.00	R 1 823 785.75	130.27%
R 1 976 214.25	R 177 859.28	R 2 154 073.54	R 5 000 000.00	R 2 845 926.46	203.28%
R 2 154 073.54	R 193 866.62	R 2 347 940.16	R 6 800 000.00	R 4 452 059.84	318.00%
R 2 347 940.16	R 211 314.61	R 2 559 254.77	R 9 200 000.00	R 6 640 745.23	474.34%
R 2 559 254.77	R 230 332.93	R 2 789 587.70	R 12 200 000.00	R 9 410 412.30	672.17%
R 2 789 587.70	R 251 062.89	R 3 040 650.59	R 16 400 000.00	R 13 359 349.41	954.24%
R 3 040 650.59	R 273 658.55	R 3 314 309.14	R 21 600 000.00	R 18 285 690.86	1306.12%
R 3 314 309.14	R 298 287.82	R 3 612 596.97	R 28 600 000.00	R 24 987 403.03	1784.81%
R 3 612 596.97	R 325 133.73	R 3 937 730.69	R 37 400 000.00	R 33 462 269.31	2390.16%
R 3 937 730.69	R 354 395.76	R 4 292 126.46	R 48 800 000.00	R 44 507 873.54	3179.13%

Note to projection

- No animals die or are sold in the 11 year period
- No escalation in either species price (although Roan escalated at 57% annually since 1987)
- Prices of bulls are taken as 1 at full price, cows at full price and remainder of bulls at 1/3 of female prices.
- Growth through 13 years at **3179%**
- Average yearly growth in animals of **244% for 13 years** is only taxed once animals are sold

Now entering the critical stage



Conclusion

- There is no other industry currently in the world which can compare with the return on investment in the rare specie industry.
- It is never too late to invest in rare wildlife.
- Invest as soon as possible for maximum returns.
- Quality not Quantity
- There is no bubble or ceiling. Prices may become more realistic in future and once the species become affordable to the hunters there will be an increase in prices again.
- We have been in the wildlife industry since the early 1980's and have never looked back.



Thank you very much
Any questions?