



# GAME RANCHING IS A BIODIVERSITY ECONOMY ASSET CLASS AND NOT A GOVERNMENT CONSERVATION ESTATE



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WRSA: Past President



# The Conservation Reality

## IUCN Definitions and Ideology

- Conservation is... the **management of human** use of the biosphere so that it may yield the greatest sustainable benefit to present generations while maintaining its potential to meet the needs and aspirations of future generations.
- Thus conservation is positive, embracing preservation, maintenance, sustainable utilization, restoration, and enhancement of the natural environment.

## Preservation Ideology

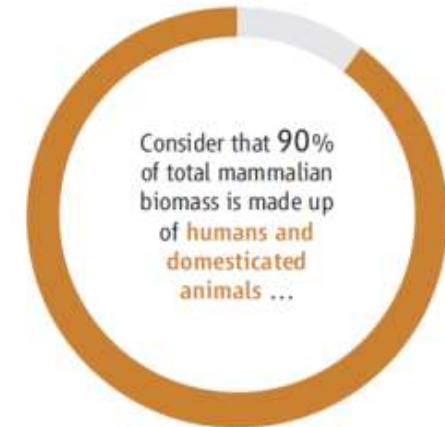
- Keeping, for emotional reasons, a snapshot of the world as it is/was at some time - defined by whom?



# The Global Reality

- The 74 largest terrestrial herbivore species (body mass <100kg) are facing drastic population declines with >60% threatened with extinction<sup>1</sup>
- Kenya lost almost 80% of its wild animals since hunting was banned
  - Key species: 20 000 rhinos declined to 1000
  - 150 000 elephants declined to 2000
  - 20 000 lions declined to 2000
- 6<sup>th</sup> mass extinction started – refer current climate change<sup>3</sup>.

## Domesticating the Planet



VACLAV SMIL, THE EARTH'S BIOSPHERE: EVOLUTION, DYNAMICS, AND CHANGE. MIT PRESS (2002)

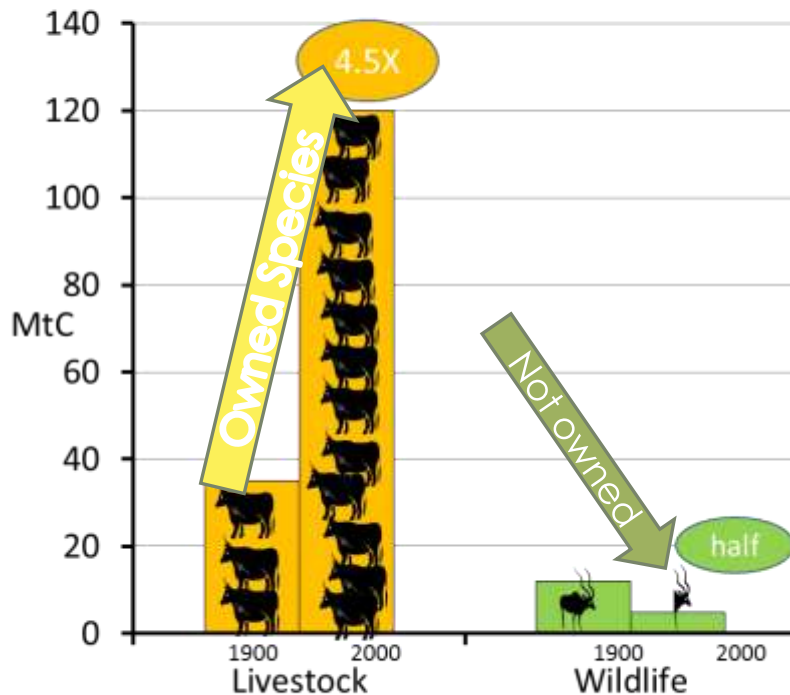
## References

1. Ripple, W.J., *et al* (2015) Collapse of the World's Largest Herbivores. *Sci.Adv.* 1, e1400103
2. Red list Data Book, 2015
3. Discussions on RSG morning actuality programme. 2016-04-11



# Global Reality...

Loss of wildlife in the past century



## References

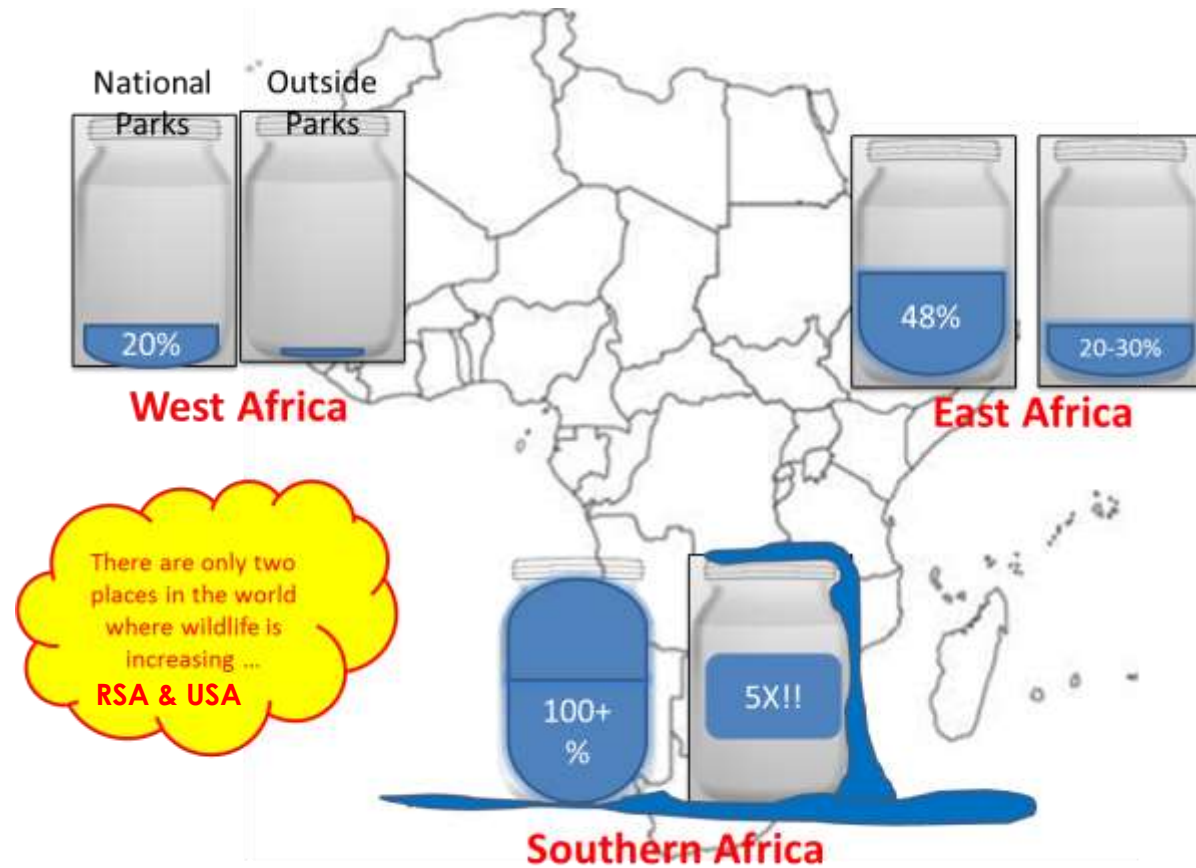
Smil, V. (2011). "Harvesting the Biosphere: The Human Impact." Population and Development Review 37(4): 613-636.

- Species that are owned (domestic), replace species that are not owned (wild), REGARDLESS of their underlying values



# Africa Reality...

What wildlife is left? 1970-current



## References

Craigie, I. D., J. E. M. Baillie, A. Balmford, C. Carbone, B. Collen, R. E. Green and J. M. Hutton (2010). "Large mammal population declines in Africa's protected areas." *Biological Conservation* 143: 2221-2228



# The International “Conservation Regulators”

## 1. CoP17, CITES, IUCN, RED DATA LIST 2015

- Do not recognize or count any animals on private wildlife ranches as “wild animals”.
- Do not recognize semi-extensive wildlife ranches as “the wild”.
- Makes no contribution to conservation and therefore the wildlife industry does not reside under the **international intent or governance**, nor **conventions or resolutions** of **CITES, CoP17 or RED DATA LISTING**.<sup>1</sup>

## 2. NEMBA

- NEMBA, and thus DEA do not count or recognize animals on private game ranches.<sup>2</sup>

## 3. Irrational Policy Development<sup>2</sup>

### References

1. Dry, G.C., Conservation Jurisprudence, Wildlife Ranching Magazine, Issue 1, 2016
2. Dry, G.C., WRSA Responses to various pieces of Norms and Standards published by DEA.





# South African Reality

- RSA had 3 private game ranches in 1960 with ownership of game and land vested in farmers.
- Currently, 20 000 000 ha marginal, uneconomic, semi-desert, agricultural land converted into sustainable land-use option.
- 10 000 – 11 000 GAME RANCHES
  - Average size of game ranch is **2700 ha**
  - **Embedded CapEx** in terms of land value, plus fencing costs, plus game handling facilities plus game is **R2300 bn**
- 20 million head of game in SA versus 14 million cattle and 30 million sheep & goats.

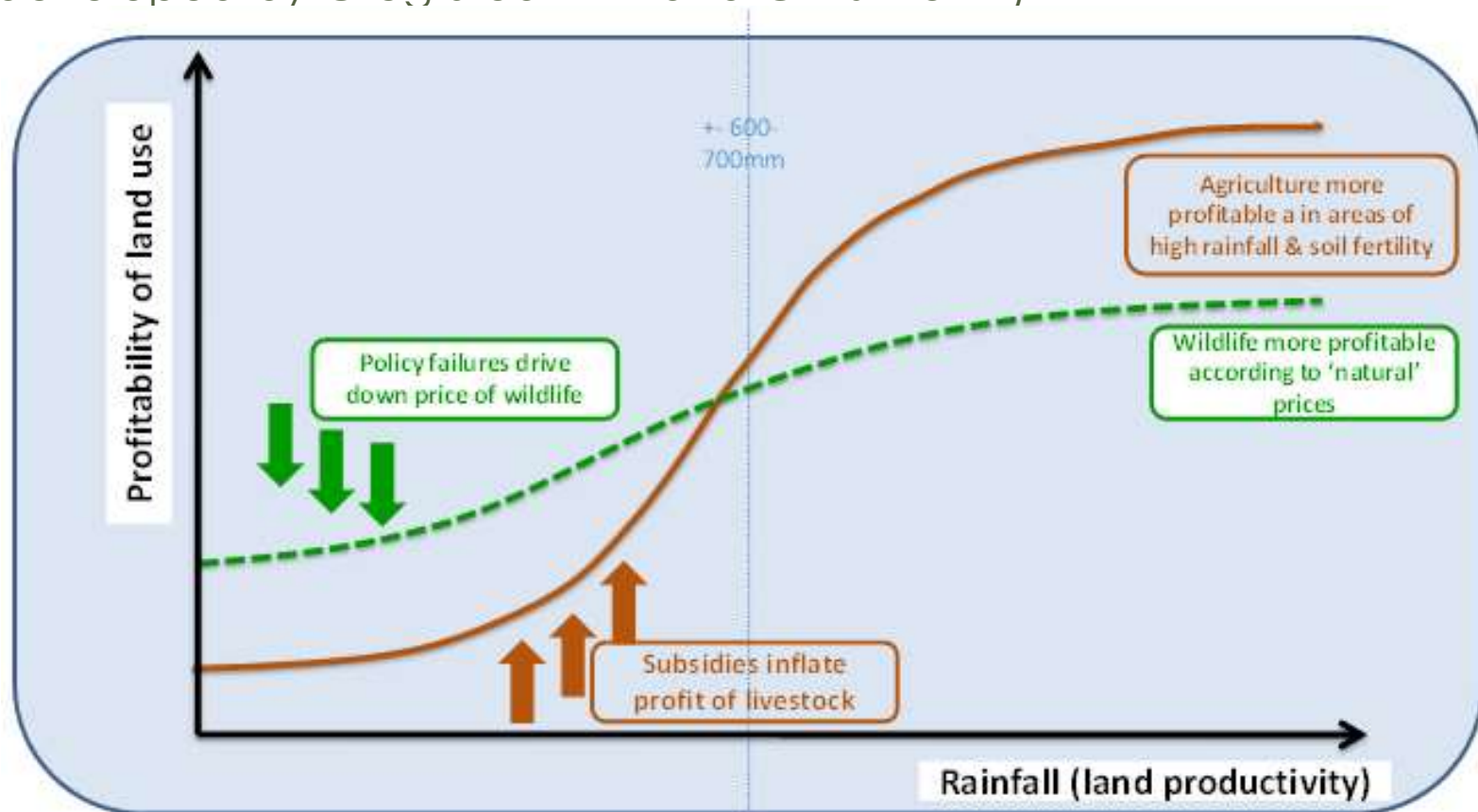
## References

- Bothma, J du P., et al. 2015. Game Management 6th Edition
- Cousins, J.A., et al. 2010. The Challenge of Regulating Private Wildlife Ranching for Conservation in South Africa. <http://www.ecologyandsociety.org/volxx/155>.
- Child, B.A., et al. 2012. The economics and institutional economics on private land in Africa.
- Cloete, P.C., et al. 2015. Game Ranching Profitability in South Africa, ABSA & Barclays.
- René van der Duims *et al*, Institutional Arrangements for Conservation, Development and Tourism in Southern Africa, 2015.



# Conclusions

Model behind Sustainable Use Approach  
(developed by Greg Stuart-Hill and Chris Brown)



## References

- Child, B.A., et al. 2012. The economics and institutional economics on private land in Africa.





# Department of Environmental Affairs and Jurisprudence

- Fifteen presentations were made at the 2<sup>nd</sup> workshop.
- A number of presenters argued against selective breeding and colour variations.
- Presenters tended to use “scientific” definitions and concepts as proxy for their arguments/belief systems:
  - “inbreeding”, “genetic bottleneck”, “small founder populations”, “genetic manipulation”, “hybridisation”, “outbreeding depression”, etc.
- They argued the above were a major threat to “animals in the wild”.
- No evidence or proof of any research/observations done on private ranches.

## References

Dry, G.C., Conservation Jurisprudence, Wildlife Ranching Magazine, Issue 1, 2016



# Department of Environmental Affairs and Jurisprudence

Species where wildlife ranching played an important role in saving them from extinction:

**Where would you look for a genetic bottle-neck?**

SPECIES	TOTAL APPROX. (1950)	IN PARKS	ON PRIVATE RANCHES	TOTAL 2015
White Rhino	30	12 000	5 000 (30%)	17 000
Black Rhino	30	1 510	450 (23%)	1 960
Blesbok	2 000	25 000	>225 000 (90%)	>250 000
Bontebok	19	1 000	>7 000 (87.5%)	>8 000
Sable Antelope	450	<500	15 000 (97%)	>15 500
Roan Antelope	150	381	4 500 > (92%)	4 881
Cape Mountain Zebra	<80	1 925	865 (31%)	>2 790
Black Wildebeest	<500	1 800	>15 700 (87%)	>17 500

## References

Dry, G.C., Conservation Jurisprudence, Wildlife Ranching Magazine, Issue 1, 2016



# South African Reality

## Current Contributions

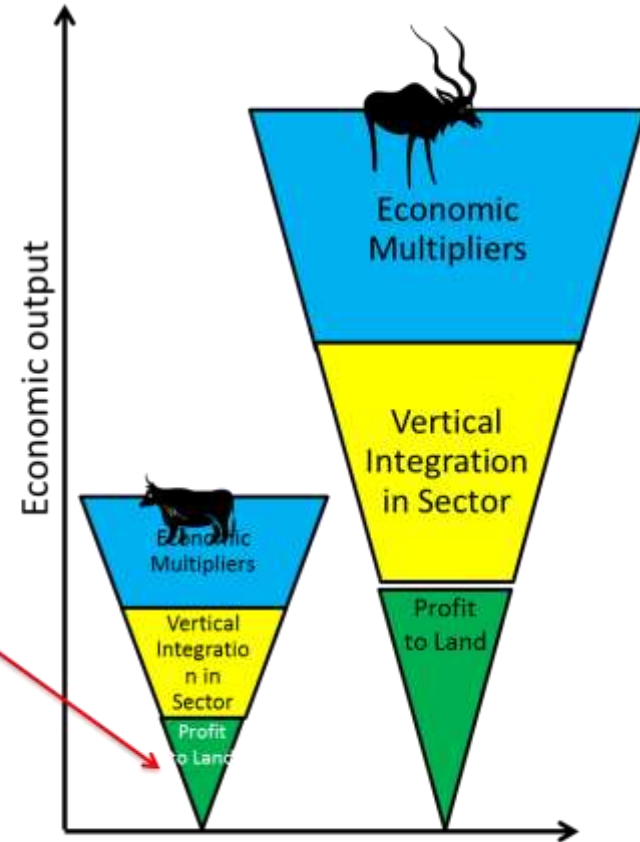
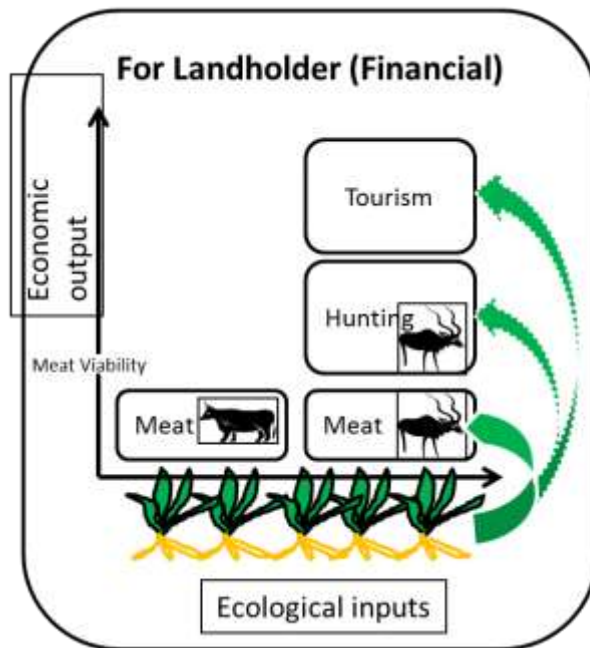
- R20 billion contribution per annum
- Decent jobs: 140 000 at better salaries due to higher skills needed
- Food security: > 150 000 tons of game meat per annum
- Sustainable use, biodiversity and conservation:
  - 20% of SA's agricultural land converted to **sustainable Biodiversity Economy**
  - Semi-extensive land-use model



# Conclusions

## Shifting from a Commodity to a Bio-Experience Economy

Beef – commodity production  
Wildlife – bio-experience economy



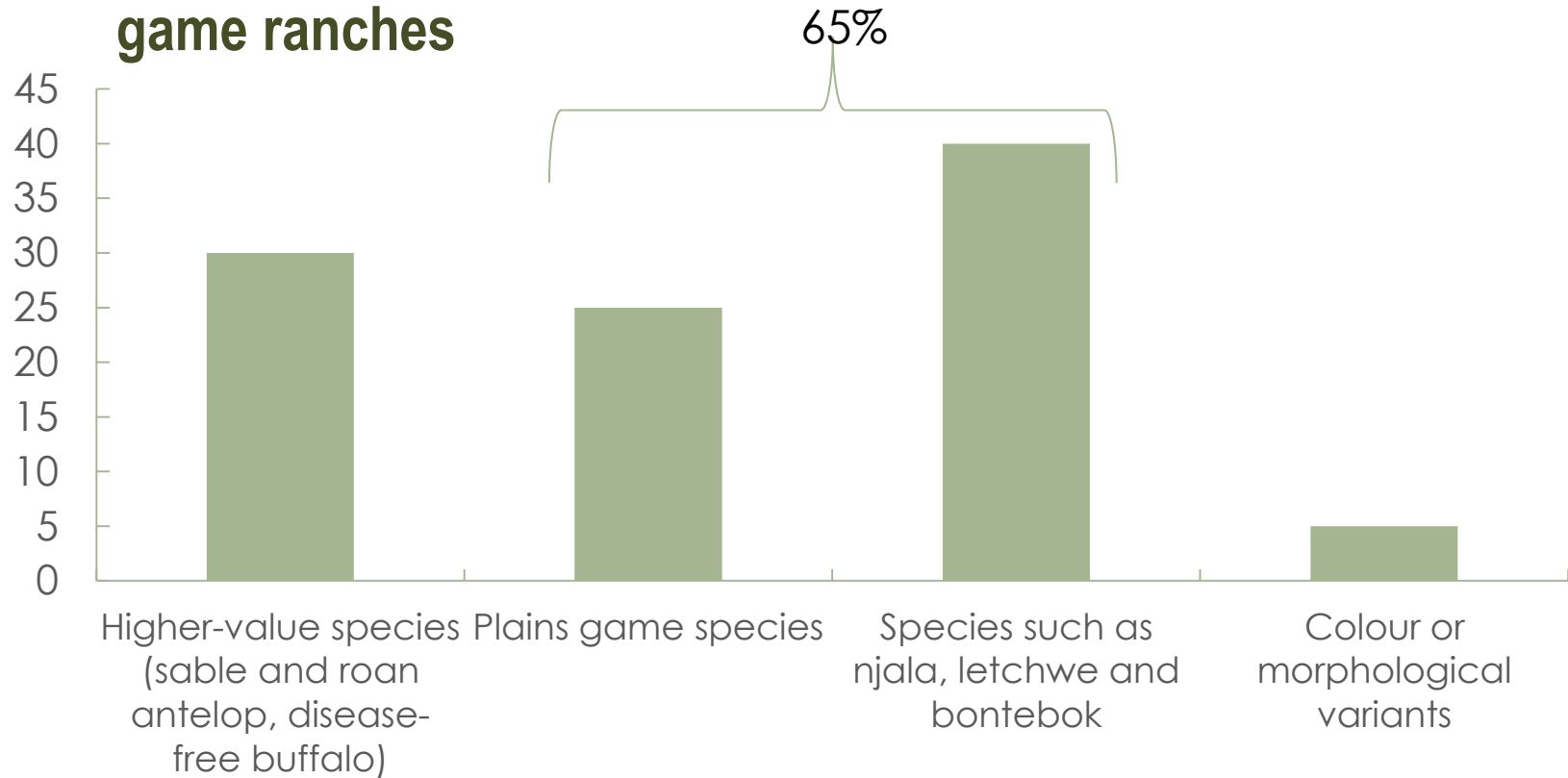
### References

Child, B.A., et al. 2012. The economics and institutional economics on private land in Africa.



# South African Reality

Categories of the species owned - % on South African game ranches



**NOTE: High-value species *et al.* only on 6% of Game Ranching land**

## References

Cloete, P.C., et al. 2015. Game Ranching Profitability in South Africa, ABSA & Barclays.



# South African Reality

## Profitability of game ranching on semi-extensive sable breeding programme

Description	Grassland	Lowveld	Bushveld	Kalahari	Karoo
<b>Gross operational income</b>	<b>R3,225,180</b>	<b>R3,377,258</b>	<b>R3,419,315</b>	<b>R3,185,956</b>	<b>R3,320,477</b>
Gross Operating Expenditure	R703,417.13	R899,686.54	R977,746.25	R101,626.10	R1,289,835.08
<b>Capital Investment</b>	<b>R19,845,435</b>	<b>R25,104,547</b>	<b>R27,120,683</b>	<b>R23,056,495</b>	<b>R22,516,708</b>
Net operating profit before tax	R2,521,763.45	R2,477,568,824.00	R2,441,568.77	R2,169,329.96	R2,030,642.33
Toatal investment made	R19,845,435.13	R25,104,547.87	R27,120,683.69	R23,056,495.81	R22,516,708.85
Net operating margin	78.2%	73.4%	71.4%	68.1%	61.2%
<b>Return on capital invested (Including sable breeding programme)</b>	<b>12.7%</b>	<b>9.9%</b>	<b>9.0%</b>	<b>9.4%</b>	<b>9.0%</b>
<b>Return on capital invested (excluding sable breeding programme)</b>	<b>5.3%</b>	<b>3.6%</b>	<b>3.1%</b>	<b>2.5%</b>	<b>2.0%</b>

### References

Cloete, P.C., et al. 2015. Game Ranching Profitability in South Africa, ABSA & Barclays.





# Profitability of Live Game Sales

All auctions (20% of all live sales)					
		Plains game	Buffalo, Sable, Roan, Rhino	Colour	Totals
2013	# animals	13,891	108	953	14,952
	Value (R'million)	58.4	572.9	54.5	685.8
2014	# animals	18,620	801	1,056	20,477
	Value (R'million)	96.8	543.4	73.7	713.9
2015	# animals	21,696	484	1,582	23,762
	%	91.3%	2.0%	6.7%	100%
2015	Value (R'million)	132	205	109	446
	%	29.7%	45.9%	24.4%	100%

## References

Cloete, P.C., et al. 2015. Game Ranching Profitability in South Africa, ABSA & Barclays.



# Conclusions

- State sponsored “Conservation/Preservation” not sustainable.
- Current “Conservation” Jurisprudence dysfunctional for game ranching
- The Essence of WRSA is
  - Africa’s resources for Africa’s people
  - Maximise and advocating the conservation, social, economic and land-use benefits in the interest of all Southern African people.

## References

Dry. G.C., 2015, WRSA Pledge Towards Transformation, Presentation at 2<sup>nd</sup> Biodiversity Indaba, 5 November 2015



# Conclusions

- MONITOR AND EVALUATE GAME RANCHING'S PERFORMANCE AS AN ASSET CLASS OF THE BIODIVERSITY ECONOMY AND SUSTAINABLE USE  
**AND NOT**  
AS AN **EXTENSION** OF THE **STATE'S CONSERVATION MANDATE**
- KEY INDUSTRY STAKEHOLDERS DEVELOP INTEGRATED/COORDINATED RESPONSE **TO MITIGATE CURRENT "NOISE-IN-THE-SYSTEM"**
- RECOMMENDED CHANGES TO GOVERNANCE AND REGULATORY MODEL BY THE STATE

# References



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- Darwin, Charles, (1859/1860): *The Origin of the Species by Means of Natural Selection.* John Murray, London.
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- Child, B., 2012. The sustainable use approach could save South Africa's rhinos. S Afr J Sci.; 108(7/8), Art. #1338, 4 pages.
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- Greniee, J *et al* (2005). *From DNA to Diversity: molecular genetics and the evolution of animal design*, 2nd edition. Blackwell Science.
- Leroi, M. (2003). *Mutants: On Genetic Variety and the Human Body.* Viking Press.
- Steele, T.E., 2007. Elsevier: *Vertebrate Records/Late Pleistocene of Africa*, p.3139.
- Bassett, S.T., 2001. *Rock Paintings of South Africa. Revealing a Legacy.* David Philip Publishers
- Melletti, M. *et al*: 2014. *Ecology, Evolution and Behaviour of Wild Cattle.* Cambridge University Press.
- Oberem Dr Peter Thomas, 2015. Personal communications
- Oberem, P.T., 2015, *The case for Game Ranching*, Presentation 2nd Biodiversity, Indaba 5 Nov. 2015
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- Dry, G.C., 2015, Personal communications
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- René van der Duims *et al*, Institutional Arrangements for Conservation, Development and Tourism in Southern Africa, 2015.
- Vorhies, F., 2015, VCA Standard, Earthmind, IUCN Conservation Centre, Gland, Switzerland

# The End





# Presenter's Notes





# Notes

1. **The Hypocrites (Key Participants)**
  - The Humane Society of the USA (HSUS), Humane Society International, Born Free, IFAW, PETA, Anti-Hunting Zealots, Anti-Humanity groups, Flat-earth believers, Sixth Mass Extinctionists, NGO's, Slogan Politicians, "Purist" Beaucrates in State Conservation agencies; AKA "1+9".
2. **RSA: Semi-extensive game ranch definitions**
3. **DEA & Jurisprudence**
4. **DAFF**
5. **Intensive golden blue wildebeest**
6. **WRSA Strategic Plan**



## **RSA: Semi-extensive game ranch definition**

- “Semi-extensive wildlife systems” means an environment that is of sufficient size for the management of self-sustaining populations of listed threatened or protected species, plains game species, irrespective of whether it is fenced or not, and irrespective of whether it meets the ecological requirements of such populations or not, but where human intervention is required in the form of:
  - provision of water;
  - supplementation of feed (e.g. during drought);
  - control of parasites or predation; or
  - provision of health care.



# Department of Environmental Affairs and Jurisprudence

- Key concerns raised during the 2<sup>nd</sup> workshop were:
  - Inbreeding/ outbreeding depression.
  - Hybridisation.
  - Animal welfare.
  - Domestication/loss of genetic fitness of introduced populations.
  - Predator control and secondary ecosystem-level impacts thereof.
  - Development of resistant strains of parasites.
  - Habitat loss and fragmentation associated with a change from extensive to intensive wildlife systems.
  - Reputational damage to the hunting and tourism industry of South Africa.
  - Socio-economic risk if investors/communities lose money invested in what may be shown to be a pyramid scheme.
  - Increased regulatory and management costs to the State, including redirecting limited resources from other important activities to benefit the activities of a few.

## References

Presenter



# Department of Agriculture, Forestry and Fisheries

- During a presentation on the topic of Policies/Act restricting agrarian transformation, the following points should be noted:
  - The National Environmental Act 107 of 1998 (NEMA) establishes principles for decision-making on matters affecting the environment.
  - However, NEMA does not adequately ensure the protection of high-value agricultural land as its focus is biodiversity and environmental conservation.

## References

The Presidency: Department of Planning, Monitoring and Evaluation , Briefing on the 2014/2015 Annual Performance of DAFF, 13 October 2015.



# Intensive golden blue wildebeest breeding programme

Description	Year 1	Year 3	Year 6	Year 8	Year 9	Year 10
Gross operating income		R3 688 969	R4 251 613	R4 442 666	R4 701 016	R4 831 922
Capital growth		R1 299 473	R230 029	R301 929	R314 918	R325 349
Herd value	R9 650 000	R11 154 536	R11 709 345	R12 297 776	R12 918 109	R13 243 458
Gross operating expenditure	R203 616	R270 318	R359 877	R468 138	R610 629	R697 711
Capital invested	R10 990 000					
<b>Internal rate of return (intensive system)</b>	<b>42.4%</b>					
<b>Return on capital investment (intensive system)</b>		<b>37.0%</b>	<b>37.4%</b>	<b>38.8%</b>	<b>40.0%</b>	<b>40.5%</b>
<b>*Internal rate of return (semi-intensive system)</b>	<b>45.9%</b>					
<b>*Return on capital investment (semi-intensive system)</b>		<b>39.4%</b>	<b>41.2%</b>	<b>44.1%</b>	<b>46.8%</b>	<b>48.2%</b>



# WRSA Strategic plan

- **GDP Contribution**
  - R75 to R100 billion per annum
- **Decent jobs**
  - 250 000 decent jobs
  - Steady improvement in living standards
  - Steady improvement in reward systems
- **Food security**
  - Produce 250 000 tons of game meat per annum
  - Facilitate the export of game meat with a target of R1 billion exports (FMD permitting)
- **Agrarian development, biodiversity and conservation**
  - 30m ha footprint for game ranching
  - 30m head of game on game ranches
  - More species on all game ranches

## References

Dry. G.C., 2015, WRSA Pledge Towards Transformation, Presentation at 2<sup>nd</sup> Biodiversity Indaba, 5 November 2015