



# How can sustainable wildlife management and trade contribute to local and national economies in Southern Africa?

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Presentation to CITES AC33 side event: Building a Wildlife Economy

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Michael 't Sas-Rolfes



# Wildlife Economy

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Not just money and jobs at local and national scales!

Broad socio-economic values and net benefits up to global scale

(e.g., ecosystem services such as climate regulation)

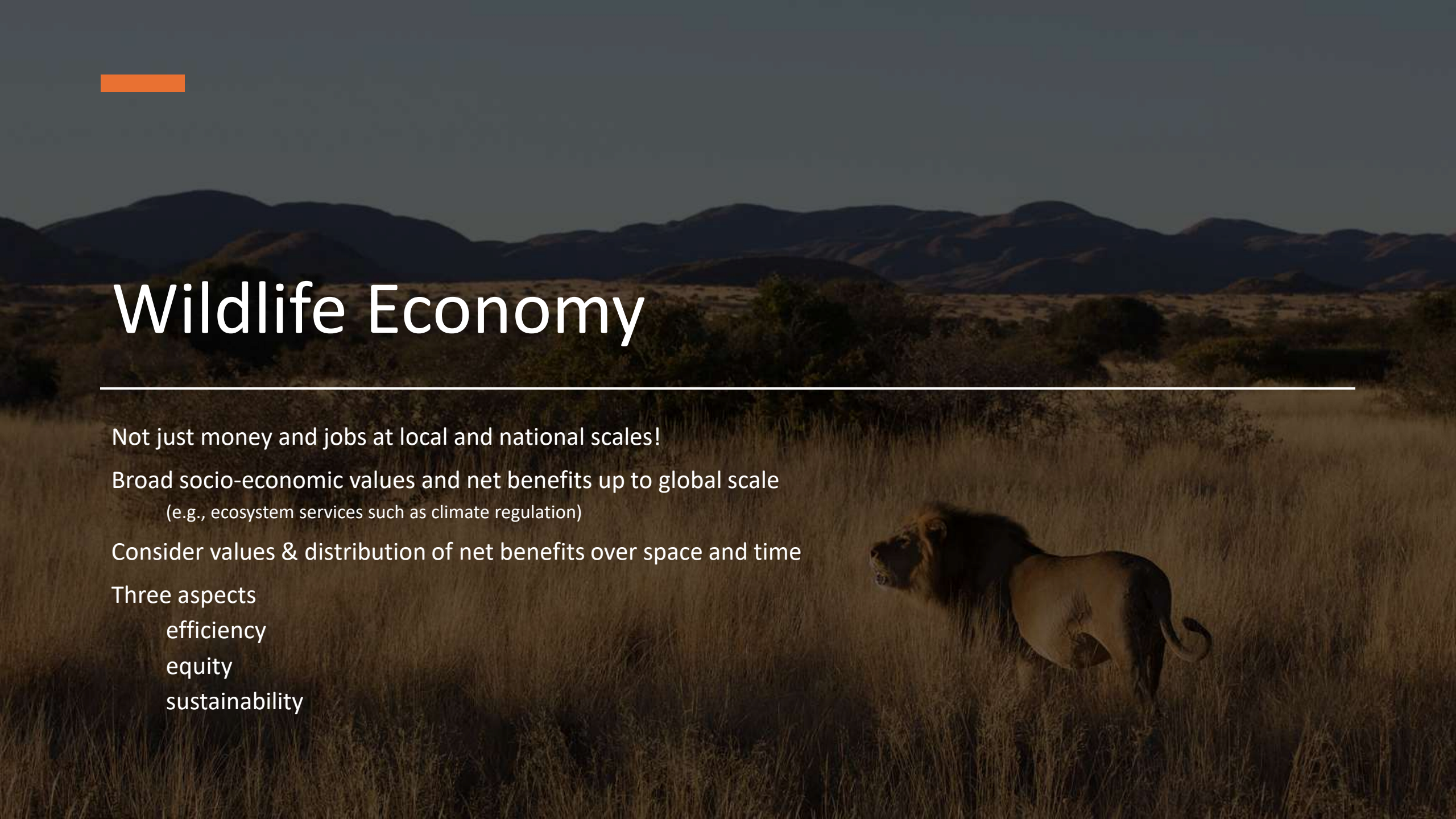
Consider values & distribution of net benefits over space and time

Three aspects

efficiency

equity

sustainability

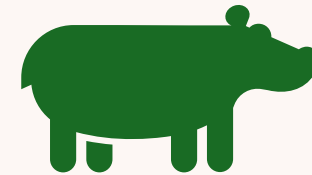


# Wildlife values (to people)?



## Public benefits

Ecosystem services  
Feel-good / existence value



## Private benefits

Non-extractive: zoos, safari-parks, filming, photo  
and viewing tourism  
Mixed: safari (trophy) hunting  
Extractive: horn, meat, skins, etc.





Costs of conservation?

# Efficiency, equity, sustainability

## Economic efficiency

- not exploitative ‘growth’ but enabling innovation (private sector entrepreneurs and market mechanisms do this best)

## Equity


- role of governments?

## Social-ecological sustainability parameters

- requires systems-thinking informed approaches



# Some lessons learned

1. From South Africa
  2. From southern Africa
  3. From African rhino conservation  
(unique innovations, good data)
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# 1. South Africa: lessons

World leader in rewilding and wildlife economy innovations

Private ownership of wild animals (Game Theft Act of 1991), and  
'Consumptive' (extractive) sustainable use (e.g., market hunting)

- Massive expansion of wildlands and increase in large mammal numbers (contrast with declines in Kenya)
- Concerns about intensified management practices (animal welfare, domestication)

## 2. Southern African (SADC) country lessons

Widespread adoption of sustainable use approaches; greater success with large mammal conservation than other parts of Africa

Impact of trade restrictions?

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*Conservation Biology* 

**REVIEW**

**Systematic review of the impact of restrictive wildlife trade measures on conservation of iconic species in southern Africa**

Christina Hiller<sup>1</sup>  | Michael 't Sas-Rolfes<sup>2</sup> 

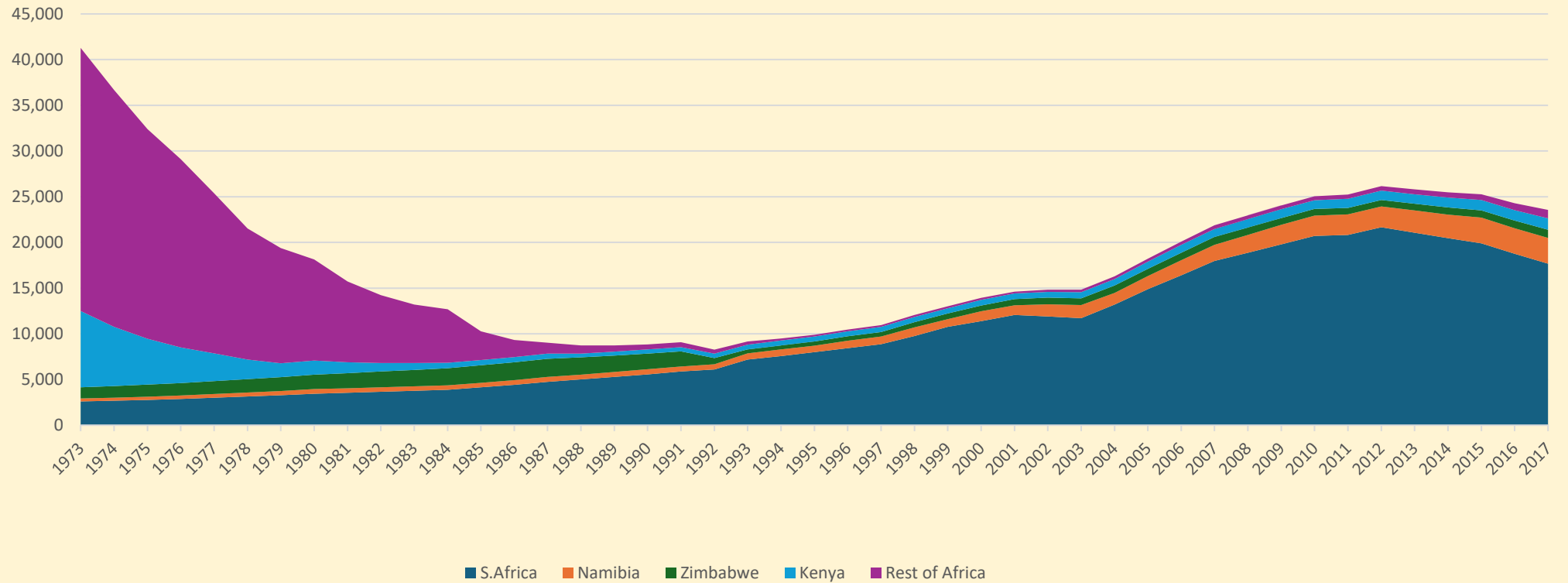


# Literature review insights – recommendations

Enhance	Enhance local enforcement capacity ( <b>early detection</b> )
Empower	Empower local communities
Research	Research the wildlife economy (economic contribution and most appropriate institutional arrangements)
Secure	Secure sustainable (renewable) funding sources
Engage	Engage with product consumers

# 3. Rhino conservation lessons?

African rhino numbers by country



# What institutional arrangements work best?



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## Ecological Economics

journal homepage: [www.elsevier.com/locate/ecolecon](http://www.elsevier.com/locate/ecolecon)



## African Rhino Conservation and the Interacting Influences of Property, Prices, and Policy

Michael 't Sas-Rolfes<sup>a,\*</sup>, Richard Emslie<sup>b</sup>

<sup>a</sup> School of Geography and the Environment, University of Oxford, South Parks Road, OX1 3QY Oxford, United Kingdom

<sup>b</sup> Ecoscot Consultancy Services, Hilton, South Africa



# Socio-economic values, property, and benefit matrix

		<b>Subtractability of use (extent of rivalry in consumption)</b>	
		High	Low
<b>Excludability</b> (ease of establishing property rights)	High	<b>Private good</b>	<b>Toll good</b>
		e.g., Rhino horn medicine, hide & meat; individually owned live rhinos	e.g., Rhino tourist viewing in access-controlled area
	Low	<b>Common pool resource</b>	<b>Public good</b>
		e.g., Free-ranging, open-access live rhino populations	e.g., Rhino species existence value; globally beneficial ecosystem services

Adapted from Ostrom (2010: 645)



# What is the impact of legal hunting?

 Conservation Letters

A journal of the Society for Conservation Biology

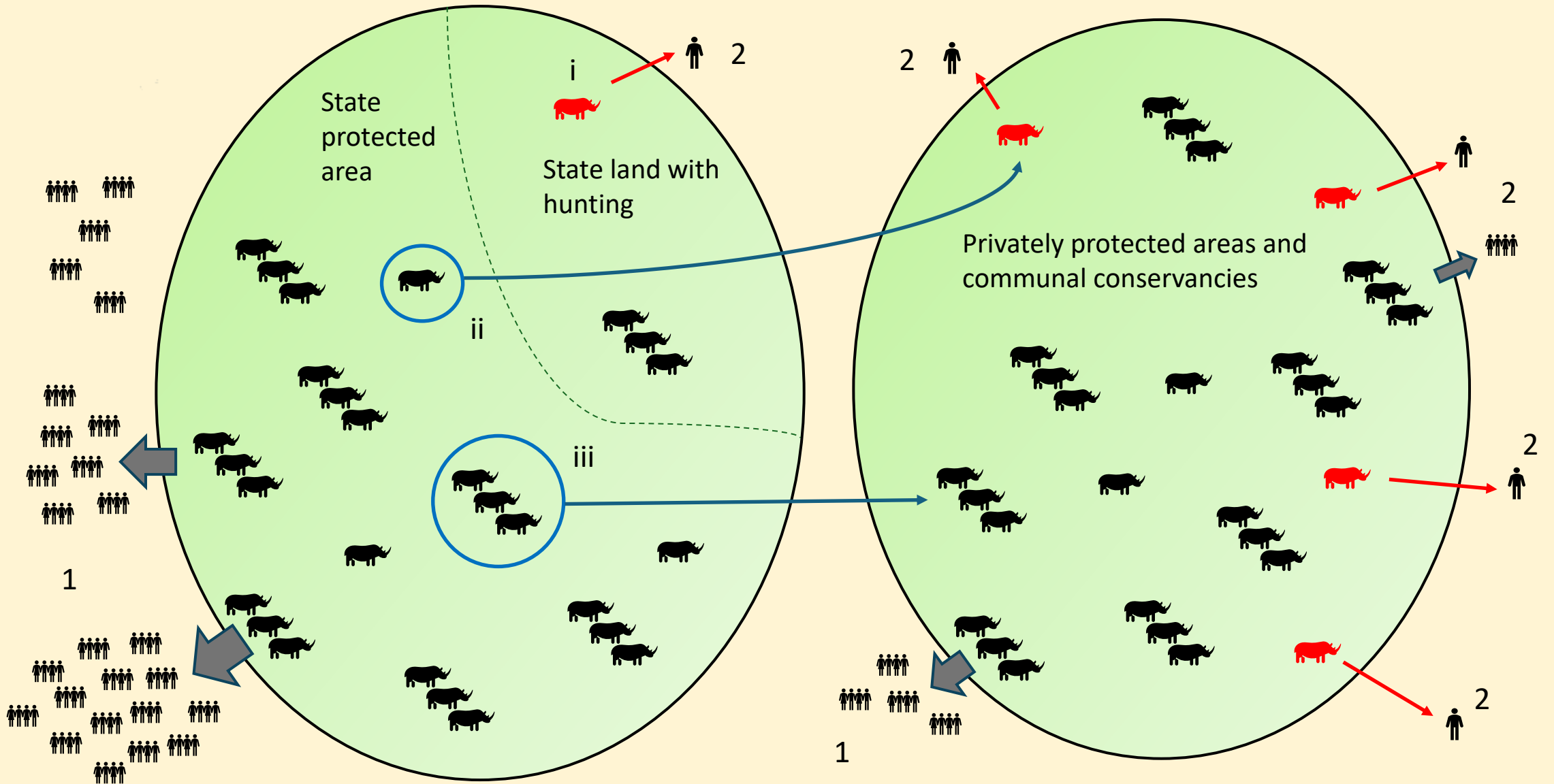
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POLICY PERSPECTIVE |  Open Access |  

## **Legal hunting for conservation of highly threatened species: The case of African rhinos**

Michael 't Sas-Rolfes , Richard Emslie, Keryn Adcock, Michael Knight

First published: 03 March 2022 | <https://doi.org/10.1111/conl.12877> | Citations: 7



**Key:** = Rhinos not hunted

= Rhinos hunted

= Hunter (with family / friends)

= Viewing tourists

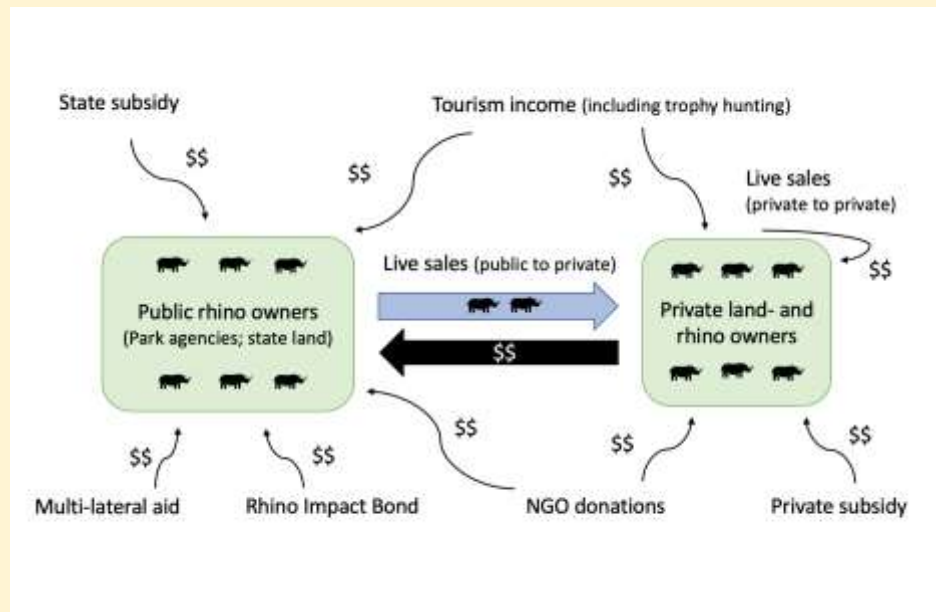
= Hunt

= Tourist viewing

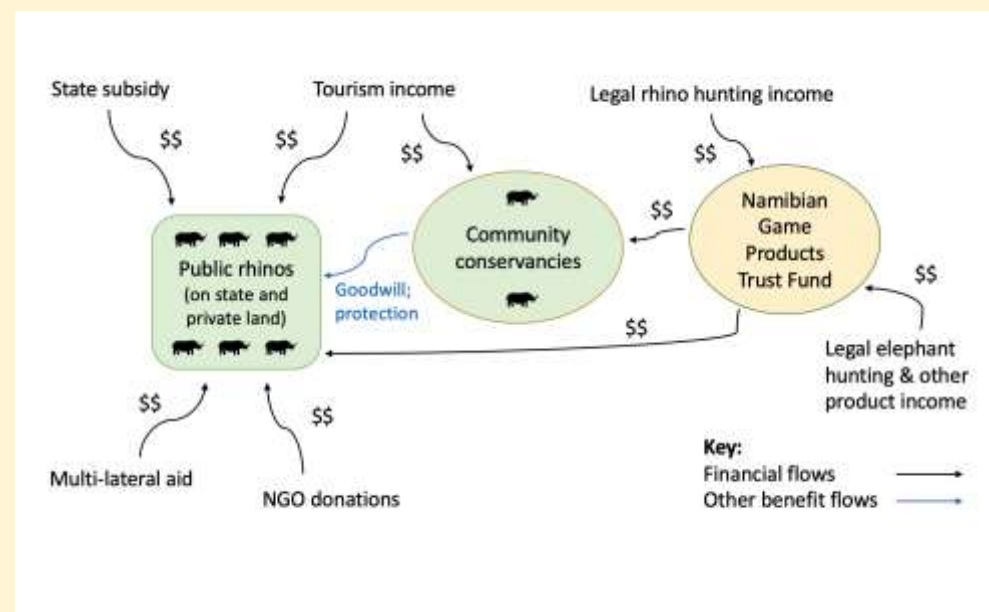
= Translocation

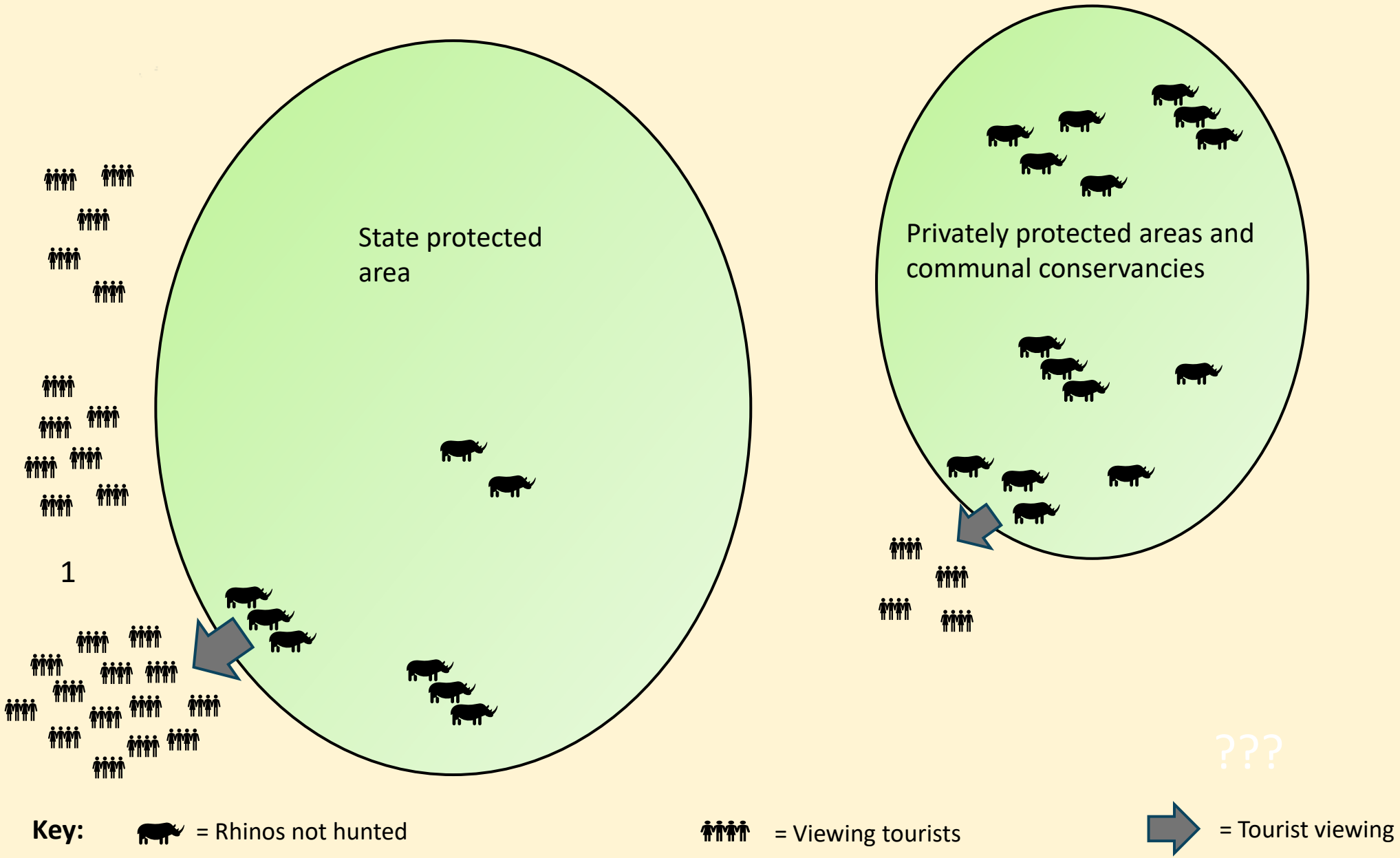
# Financing models

## Market-based (SA & Namibia)



## Hybrid (Namibia)







# Rhino conservation: three conclusions

A photograph of a rhinoceros standing in a savanna landscape. The rhino is the central focus, facing left. The background shows a rolling hill covered in sparse vegetation under a clear sky. The overall scene is a natural, outdoor setting.

1. Countries with institutional diversity (i.e., some devolution of rights) significantly outperform those with little to none (i.e., full state control)
2. With the appropriate institutions in place, legal hunting supports and even enhances rhino conservation (through both biological management and financial pathways)
3. Decentralization measures appear to perform better than centralization measures (with 'domestication' caveat)



# Overall conclusions

- Maximizing the full suite of wildlife values over a range of geographies and stakeholders will deliver the greatest socio-economic outcomes (and most effective conservation outcomes)
- The best way to achieve this is with governments working together with appropriately incentivized non-state actors with clearly defined roles and parameters (e.g., industry standards)

