

Climate Change Impacts on Protected Area Boundaries: A Speculative Analysis Using African Wild Dogs as a Case Study



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Conservation, Partnerships & Ecotourism

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Understanding Society

IUS CARNIVORIS



Impacts of Climate Change on Small Protected Areas

Protected area Management Perspective

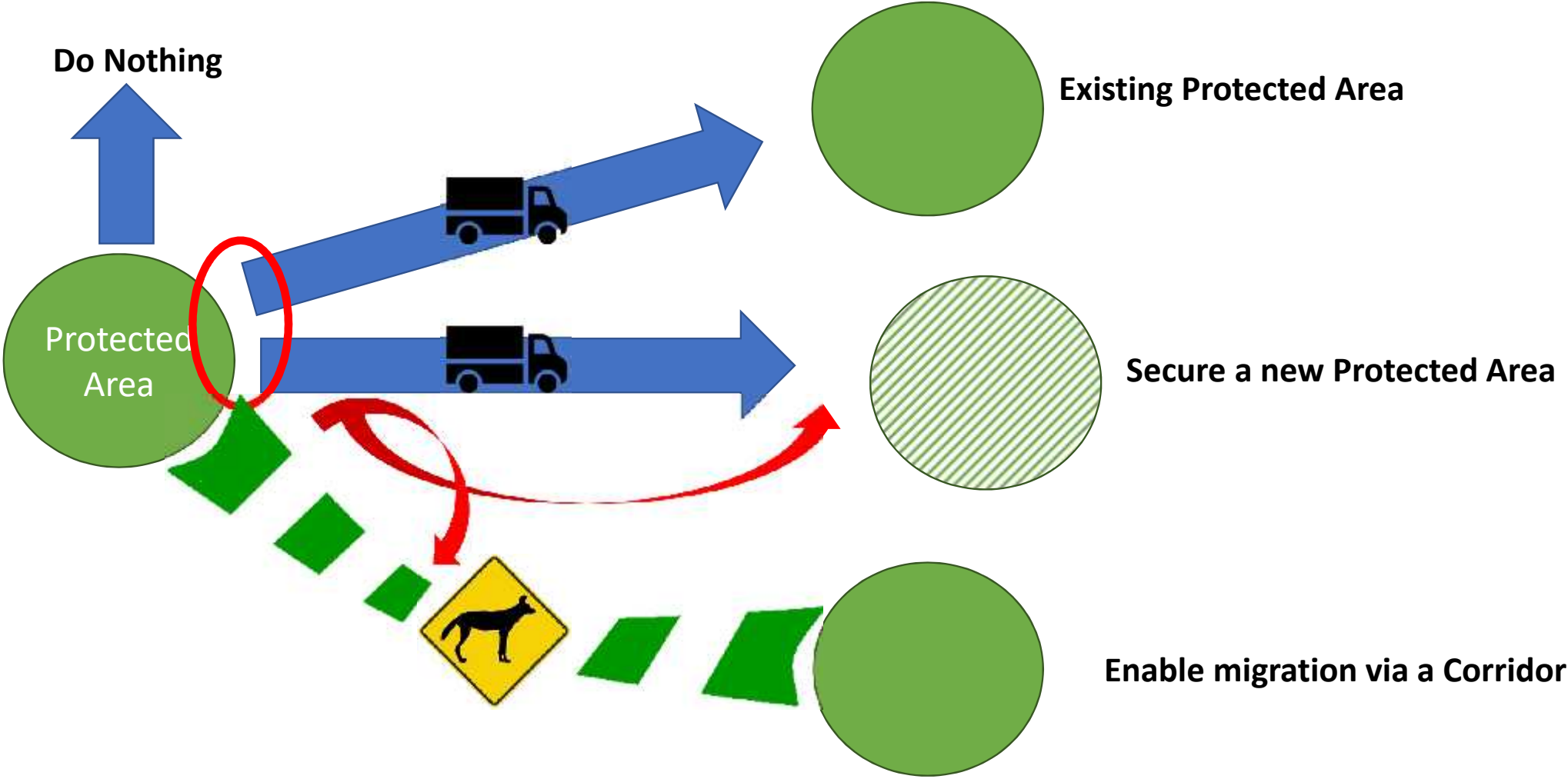
- Loss of Habitat, species abundance and diversity,
- Movement of Wildlife out of Protected Area,
- Increased Human – Wildlife Conflict,
- Change in tourism attractiveness, etc

Which Means

- Destruction / Persecution of DCAs,
- Loss of neighbour and political support for protected area,
- Increased Compensation for damage, etc



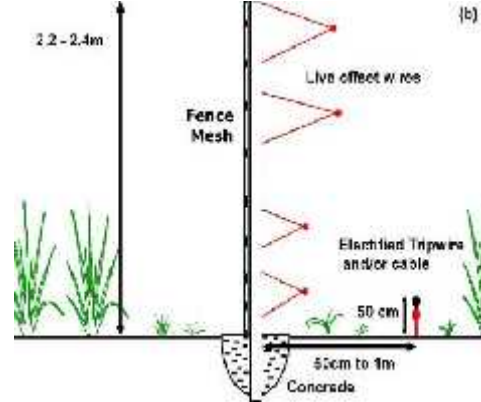
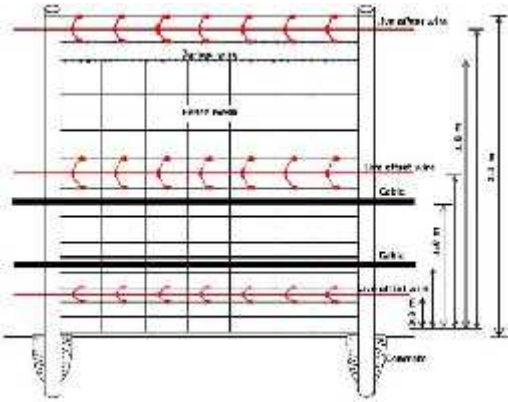
Response to Species Displaced by Climate Change



**How Practical are these Proactive
Solutions at a Protected Area
Management Level?**

**Is the solution a simple one or are
there substantial challenges that need
to be overcome ?**

Confining DCAs to Protected Areas



Damage Causing Animal	Average Escapes per year	Livestock Type	Average killed per Escape	Maximum killed per Escape	Minimum killed per Escape
Lion	18.6±9.4	Goat	3.8±3.7	9	1
		Cattle	1.8±2.0	17	1
Wild dog	46±27.1	Goat	4.5±2.8	20	1
		Cattle (calves)	1.1±0.3	2	1

Unpublished data- for Hluhluwe-iMfolozi Park (1 January 2014 and 31 December 2018)

Case Study – Tembe Elephant Park & African Wild Dog



Introduction of Wild Dog to Tembe Elephant Park

Motivation

- Improving conservation status of species
- Sourced as 'excess' animals and damage causing individuals
- Reduce antelope numbers
- Financial compensation proposed for mitigation
- Increased tourism attraction
- ...

Consultation – Strongly Opposed by neighbouring communities

- Loss of livestock
- Degree of distrust – timely and adequate compensation
- ...

DECISION – NOT TO INTRODUCE

Manager of a Community Owned Boutique Lodge

- Sought to challenge and overturn the Conservation Agency's Decision

Argued at a hearing with stakeholders as the Tembe Tribal Court

- Wild dog was paramount for tourism attractiveness and growth
- Benefits to Community not given sufficient weight. e.g.
 - Increased revenue
 - Jobs and Career opportunities
- He would pay the necessary compensation for damage caused by wild dogs, provided
 - Conservation Agency confirmed Wild Dog primarily responsible for stock loss
- Introduction subsequently supported by Community
- Formal Agreement between Lodge Manager and Tembe to be entered into



<http://tembe.co.za/>



<http://royalthonga.com/>

DECISION TO FORMALISE INTRODUCTION PENDING

CONCLUSION

Some Key Lessons Learnt

1. Wildlife (esp iconic or DCAs) conservation decisions not a simple 'put or take' management decision:
2. Protected area management and conservation planning decisions must take into consideration of the impacts of climate change at a PA boundary level:
 - Communities take full brunt of DCAs – Interests key role in decision making.
 - Rural Communities and private entities playing increasing financial and ownership role in protected areas (PA Driver of rural economies)
 - Greater tolerance of DCAs if Community receives substantial benefit and appropriately compensated.
 - Decision to introduce/retain/relocate Wildlife (esp DCAs) must take complex relationship between participating communities, tourism industry and conservation agency.

Full Paper drafted for:
Frontiers in Ecology and Evolution
Conservation and Management of Large Carnivores - Local Insights for Global Challenges
<https://www.frontiersin.org/research-topics/9217>

Thank You

