

Assessment of Veterinary Fences (Phase 1): Impacts on Wildlife Movement in KAZA's WDAs

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Evaluation of fences as a KAZA priority

KAZA has recognized the need for a "state of fences" assessment to inform cross-sectoral decision-making

Considerations:

- KAZA Master IDP recognizes need for discussions between BW & NA on decommissioning boundary fences
- CBT of beef creates opportunity for less reliance on fences for disease risk mitigation & enhances income generation for communities

Context for DEFRA support



KAZA Partner States

Elephant management strategy approved in 2019 & **adopted by Heads of State** at Kasane Elephant Summit...**recognizes that connectivity across broader landscape is critical**

In response

KAZA Secretariat, in consultation with Partner States, secured Defra funding for suite of projects incl. veterinary fences assessment

Fencing assessment (Phase 1)

AHEAD served as co-implementor

- Aim: assessment of veterinary fence impacts on **wildlife** within Botswana (key fences are Botswana's) and across KAZA
- **Phase 1- completed March 2021 and discussed with Botswana's NCCF in July 2021**

Project partners & collaborators



Cornell
Veterinary Medicine



Findings & recommendations based on...

- 10+ years GPS wildlife collaring data (BW & NA)
- Aerial surveys (w/ Botswana DVS & DWNP observers- all fences are Botswana's)
- Ground surveys
- HWC data & coexistence strategies



Focus area & key fences

WDAs where fences are an impediment to movement

1. Kwando River WDA

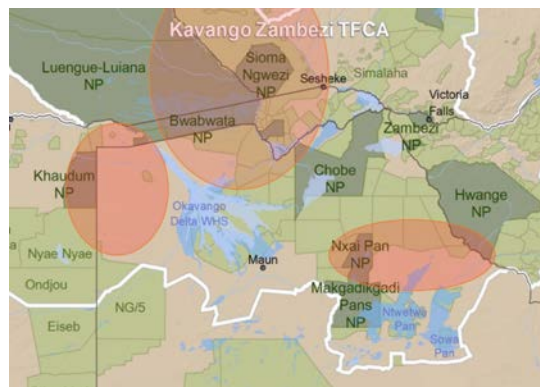
- Zambezi Border (east)
- Northern Buffalo

2. Khaudum-Ngamiland WDA

- Zambezi Border (west)
- North-South Border
- Samochima
- Ikoga

3. Hwange-Makgadikgadi-Nxai Pan WDA

- Ngwasha



All fences selected: (i) major fences (ii) veterinary control as primary function (iii) fall within WDA

**Other fences briefly touched on (Southern Buffalo, Setata & BW-ZW Border fences)*

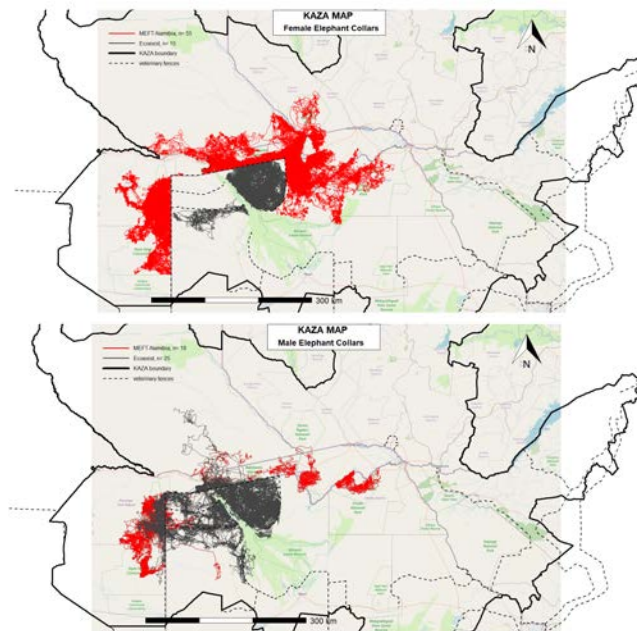
Movements of GPS collared wildlife

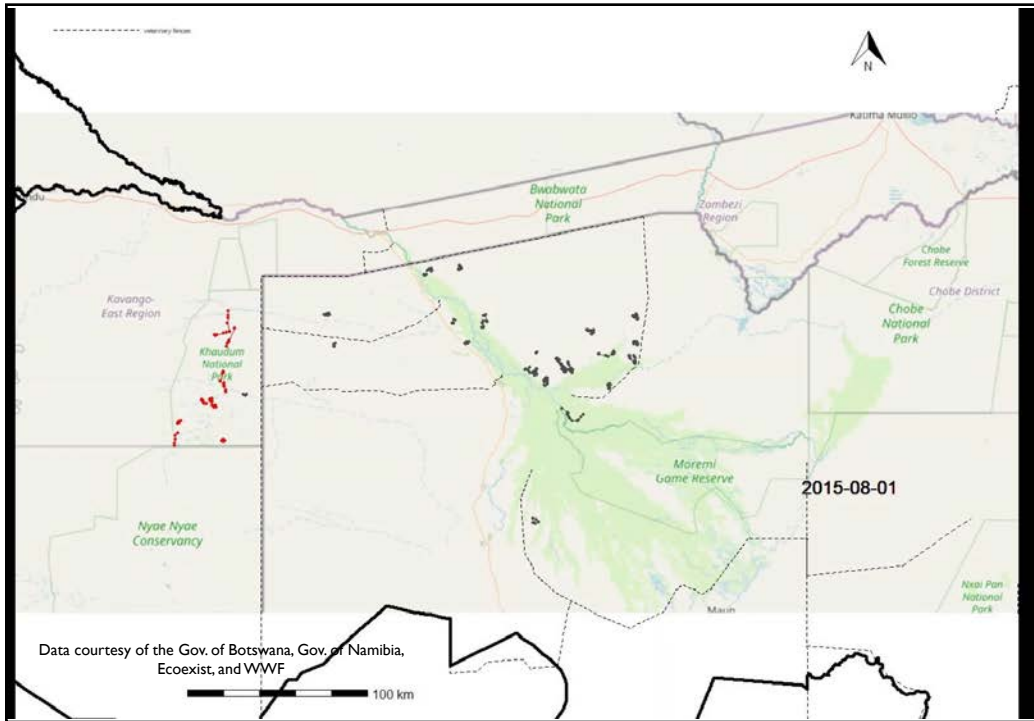


Elephant: GPS dataset (>1.5 million data points)

Other wildlife: GPS dataset (>290,000 data points)

Elephant GPS movements across the WDA



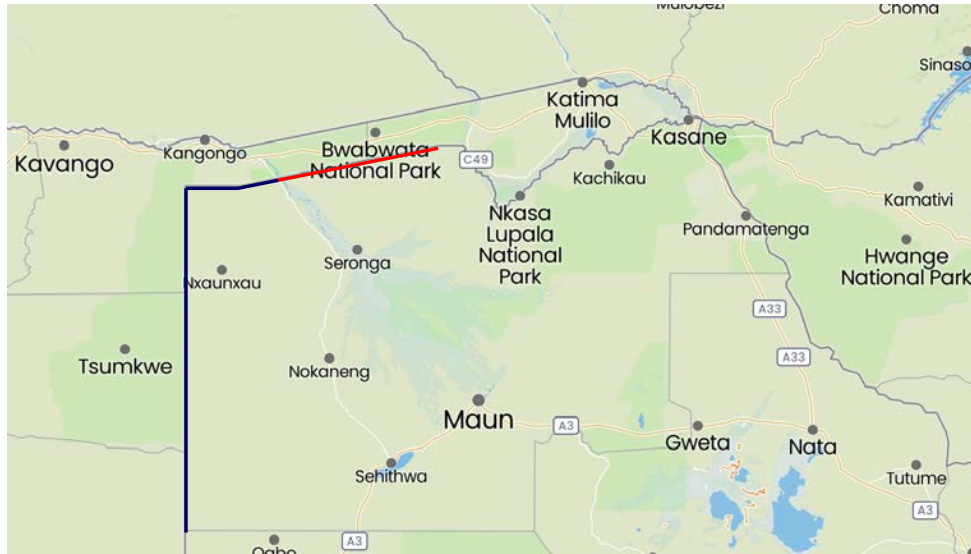


Ground surveys (key fences)

Status & potential impacts on wildlife



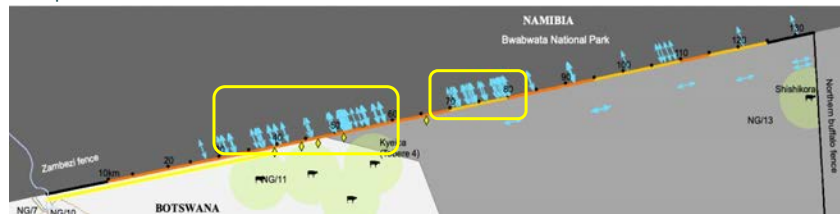
Zambezi Border fence (east of Okavango)



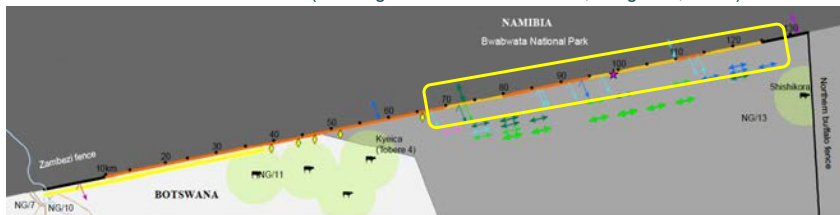
Zambezi Border fence (east of Okavango)

Ground survey

1. Elephant fence encounters

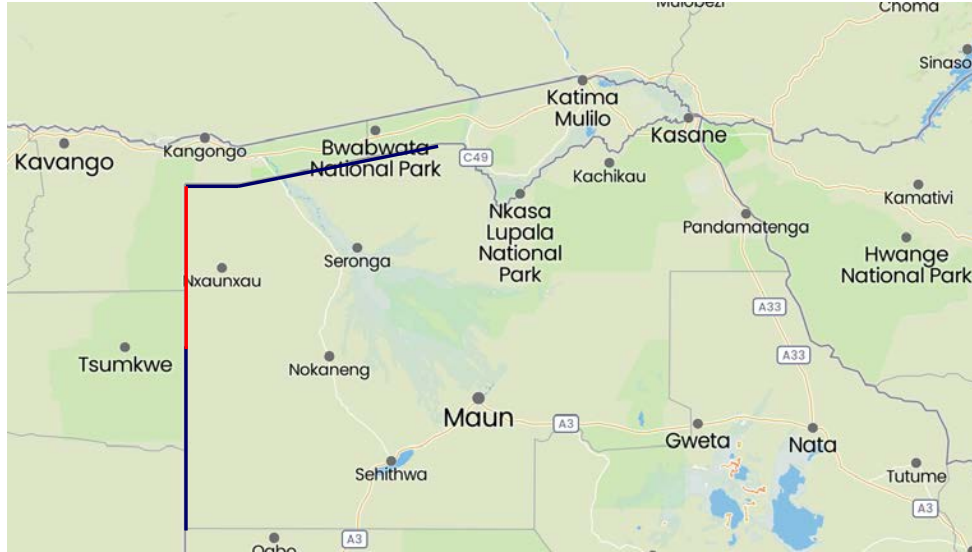


2. Other herbivore fence encounters (crossing success low - 6% sable; 0% giraffe, zebra)



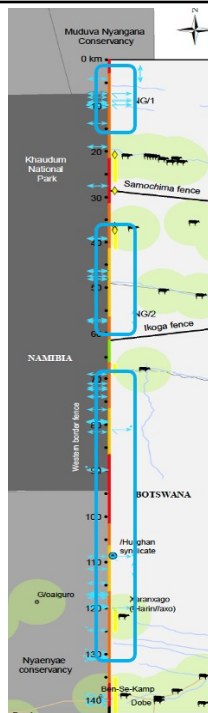
Fence gaps have minimal effect in alleviating wildlife build-up. May be due to cable still being intact.

North-South Border fence



North-South Border fence

Ground survey



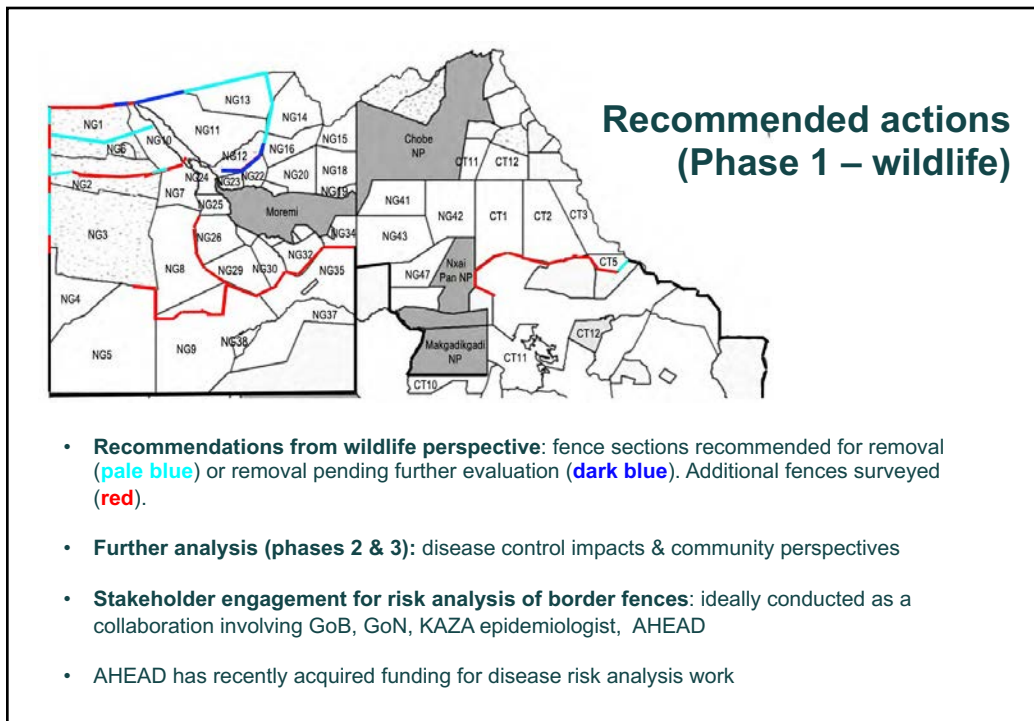
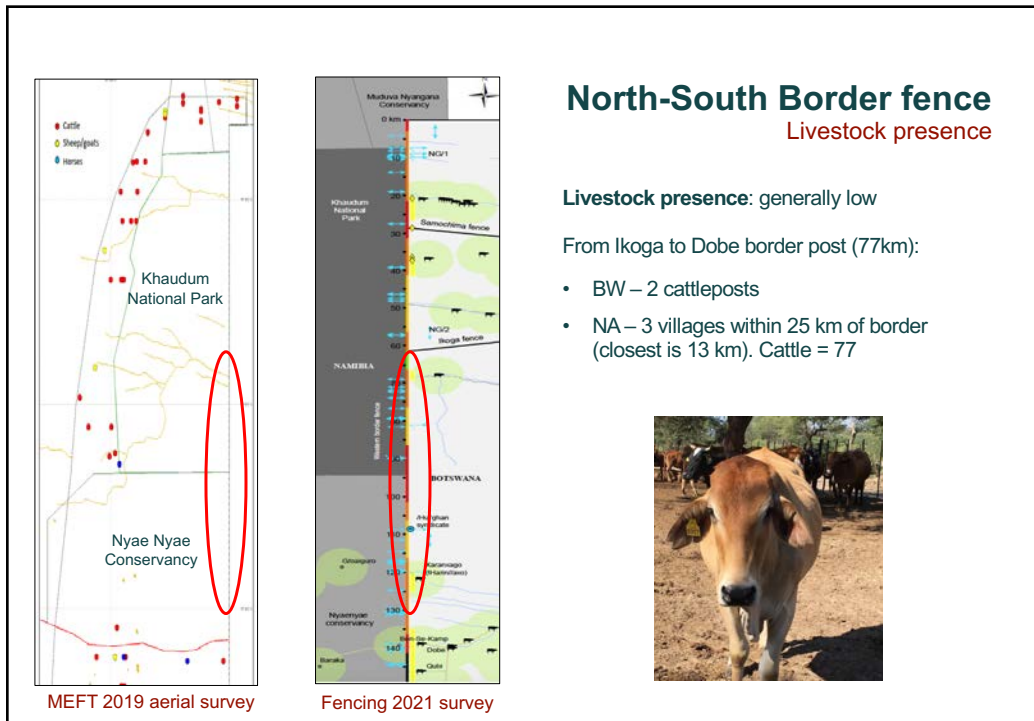
Status of fence:

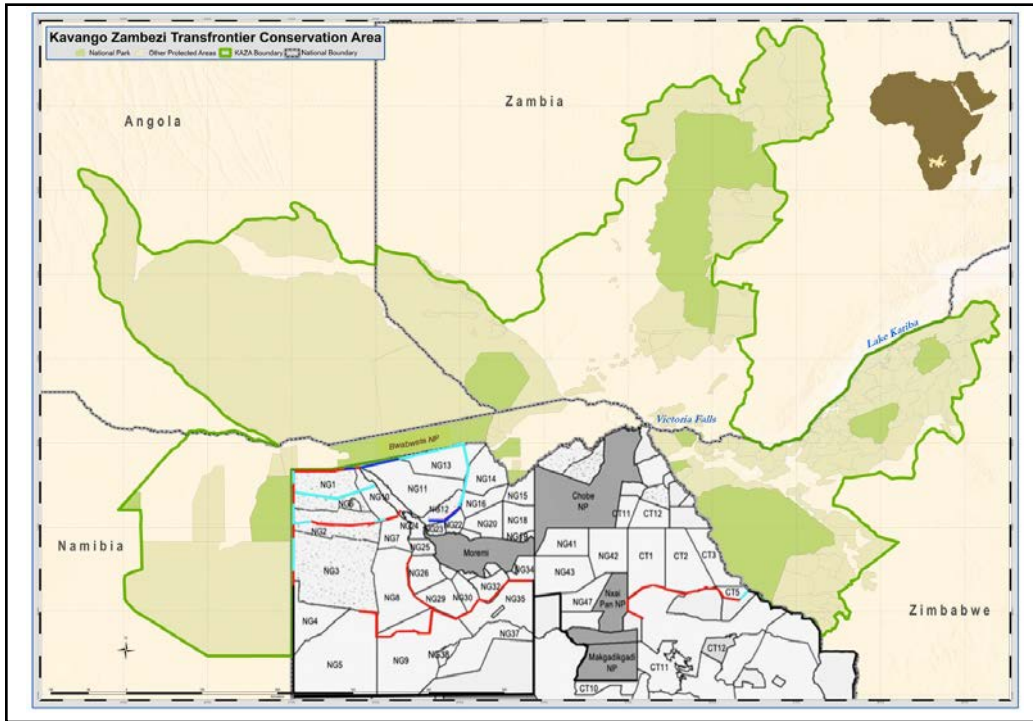
- repair work in north corner (Dec 2020)
- repair work further south (Mar 2022)

Elephants (left): somewhat constrained (Dec 2020)

Other herbivores (right): high degree of movement interference in north, parallel paths (Dec 2020)







Thank you



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