



An Historical Perspective on Fencing in Botswana and Namibia: The Future of Wildlife, Livestock and People in the KAZA TFCA

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Ways Forward in the KAZA Context”
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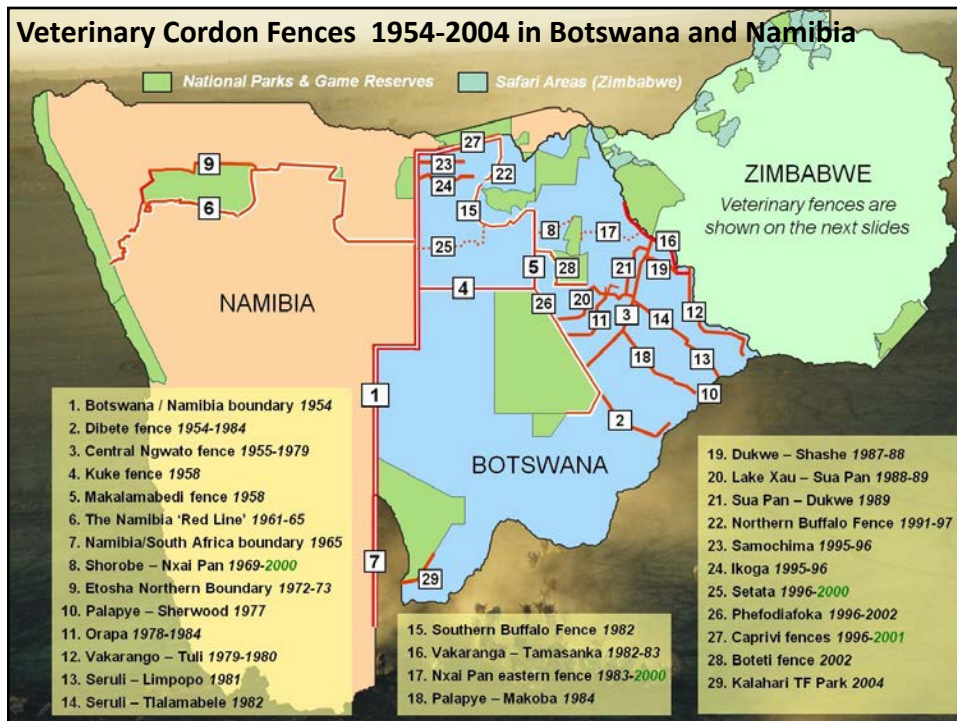
Historical background

- Over 40 years ago EU treaties provided preferential trade agreements and markets to southern African countries, aimed at promoting economic development
- The commercial livestock sector, in particular, was a major benefactor of these agreements with participating countries receiving lucrative returns for exported livestock products to the recipient EU markets
- **Agro-pastoral livestock producers however, have never been beneficiaries of these agreements**



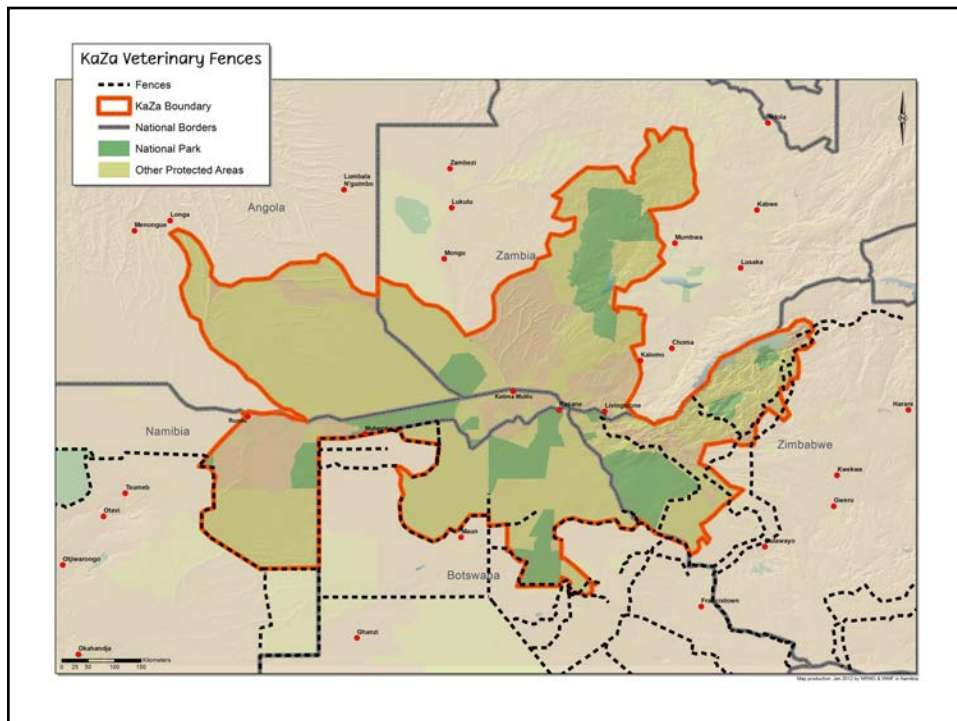
Compliance with veterinary health requirements

- Engagement of these trade agreements required participating countries to comply with stringent veterinary and animal health standards
- This resulted in significant negative consequences for wildlife populations and their associated dispersal or movement routes
- The eradication of targeted wildlife species was followed by the establishment of disease-free livestock export zones
- Adjacent disease surveillance areas separated wildlife from livestock through the construction of thousands of km game fencing

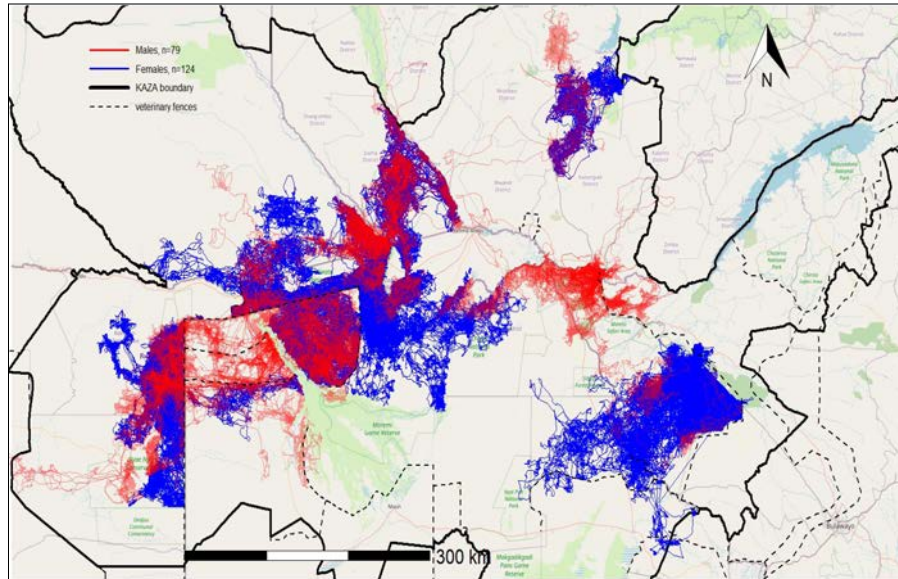


Veterinary Cordon Fences

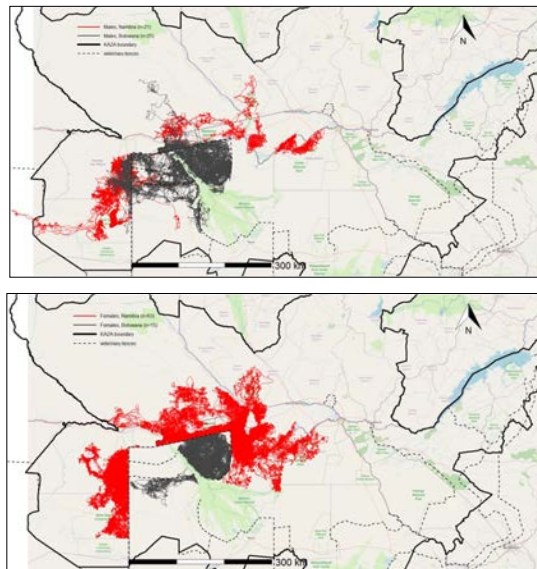
- Established initially in some countries to control tsetse fly, the vector of Trypanosomiasis (sleeping sickness), and thereafter, Foot and Mouth Disease
- Both diseases strongly associated with wildlife that affected livestock production and beef exports from southern Africa
- Around **10,000 km** of fences were erected for control purposes, separating cattle and wildlife
- Led to the loss directly through shooting, and indirectly through restricting seasonal wildlife movement, and associated declines of c. **1,4 million** large mammals since the 1930s to the present



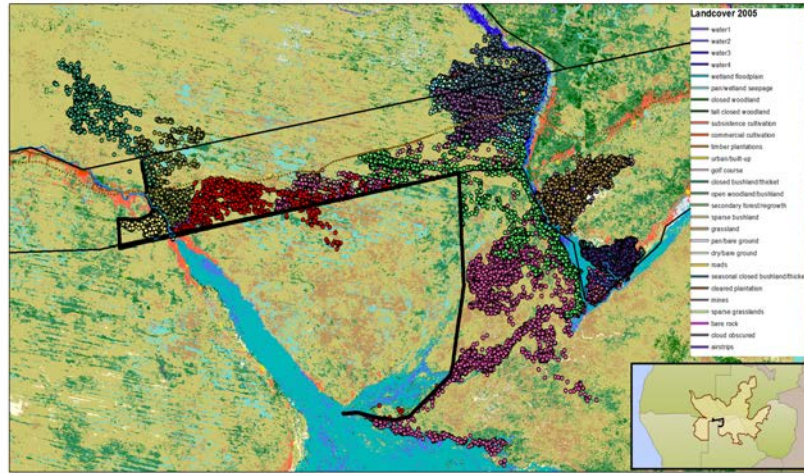
Movements of 203 GPS-collared elephants 2010-present in the KAZA TFCA Red = Males, Blue = Females



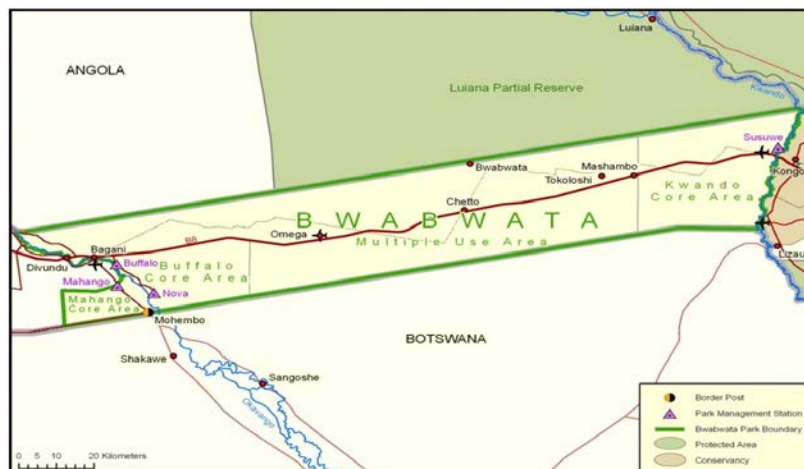
Effects of border fences on male movements (top) and female movements (bottom) in Namibia (red) and Botswana (black)



Distribution: GPS observations of 32 African buffalo collared in the Kavango and Zambezi regions of Namibia. Fences deny buffalo access to the parcel of land up to the Okavango Delta



Bwabwata National Park showing Mahango, Buffalo and Kwando Core Areas and the Multiple Use Area (MUA)



See: Erdwin Muradzikwa (2021) "A strategy for the Removal of Cattle from the Bwabwata National Park's Multiple Use Area "

Consequences of option foreclosures

- The introduction of veterinary fences has had devastating effects on wildlife populations given their need to move seasonally in response to rainfall and food production in the arid and semi-arid environments of the region
- These impacts either foreclosed or severely limited other economically competitive wildlife-based land use options, marking a major failure to recognize southern Africa's comparative economic advantage



Livestock and wildlife production systems

- At the time of these initial trade agreements, livestock production, promoted by EU agricultural subsidies was a viable land use option, at least in the short-term
- Increasing evidence to the contrary however, includes greater climatic variability, declining livestock productivity, market failures and social disruptions amongst the rural poor
- Consequently, the emergence of wildlife production systems as a competitive land use is now challenging the conventional rangelands-livestock model



Innovations required

- Wildlife has been unable to achieve its full potential due to lack of investment in R&D, the limitations of disease-related constraints and in the face of conventional wisdom
- The advent of globalization has produced massive shifts in market demands. New opportunities such as nature-based tourism and TFCAs have emerged for wildlife to play its meaningful role
- The sector now seeks to overcome these constraints but its future will remain limited until policies are unshackled from the past and are able to embrace a multispecies animal production systems approach to the use of land – **cattle and wildlife, not cattle versus wildlife**
- **One innovative contribution is Commodity Based Trade**



Commodity Based Trade in Beef

- Advantages of a CBT approach
 - **Non-geographic in nature, e.g. reduces reliance on fences**
 - **Imminently suited to communal agro-pastoralism & animal husbandry systems**
 - **Adopt primary animal health care systems in wildlife areas, e.g. PPCB**
 - **Adopt improved range management systems, e.g. H4H**
 - **Non-prejudicial to livestock owners living adjacent to wildlife areas**

Commodity Based Trade in Beef

- Reduced risk to overall national FMD status
 - Minor outbreak has relatively minimal impact
 - Relatively easy to resume exports
 - No risk of FMD affecting replacement stock availability for vaccinated CBT compartments
 - Ability to imbed “CBT compartments” within other broader FMD control strategies

Management at scale

- Enables greater land use harmonisation
- Enables risk diversification in the face of climate change
- Provides for intimate wildlife-livestock interfacing



Risk diversification

- Diverse ecosystems & greater biodiversity across large landscapes reduces risk to natural systems
- Provides greater resilience to natural catastrophes, disease outbreaks and climatic challenges
- Provides for management at scale – micro to macro levels
- Economic diversification spreads risk and imparts resilience to local economies faced with various environmental, economic & socio-political challenges
- Provides for multispecies animal production systems and avoids the “cattle versus wildlife” dichotomy, and option foreclosure
- **Added natural resource use value – “cattle and wildlife”**