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## Towards alignment of disease management and livestock trade promotion in Ngamiland

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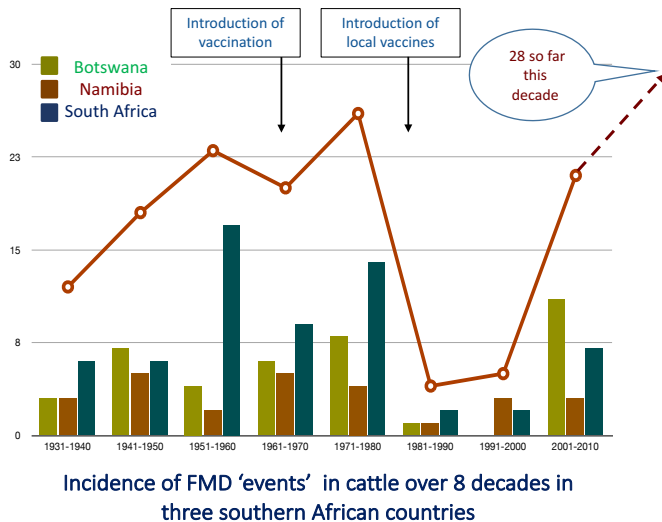
Wildlife Friendly Beef: Working towards a win-win solution for livestock agriculture and wildlife conservation in Ngamiland

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### Departure point

- FMD management in Ngamiland is the preserve of the Government of Botswana; projects like this can only make technical suggestions for consideration
- Observations made here are based on occurrence & trends in southern Africa generally; they do not relate to Botswana specifically
- Although policies related to animal disease management need to take technical realities into account, policy is ultimately shaped by a wide range of interacting factors

## Long-term FMD control in Southern Africa: 1931-2017



### Pillars of current FMD management in southern Africa:

- Targeted surveillance in or near locations where African buffalo are present
- Separation of buffalo from livestock populations, primarily through the use of game-proof fencing, to enable the creation of FMD-free zones
- Control of the movement of infectious materials
- Routine prophylactic vaccination of cattle (occasionally goats & sheep) on the periphery of FMD-free zones to protect livestock

**This has been the basic strategy for many decades**

**A regional problem – not just for Botswana: Traditional approach is not working!**

## Possible reasons for declining effectiveness of FMD control

- Increasing livestock numbers ⇒ more intense interaction at livestock/wildlife interface
  - creation of TFCAs could increase incidence of FMD outbreaks but currently not a significant factor because there have been few changes on the ground in TFCAs
- Preventive mass vaccination programmes appear less effective than formerly
  - vaccine quality has been improved but available vaccines still likely do not protect against all circulating FMD viruses (i.e. 'matching' of buffalo viruses & vaccine strains difficult)
  - poorly organised vaccination programmes that do not deliver adequate vaccine coverage
  - inadequate auditing of vaccination programmes & lack of corrective measures when post-vaccination monitoring indicates inadequate herd immunity
  - net result ⇒ poor protection of the susceptible cattle population
- Some claim veterinary services are less effective than formerly but difficult to measure

## Some realities

- In situations like Ngamiland, FMD cannot – with existing technology – be eradicated; explanation published (Thomson & Penrith, 2017 – Transboundary & Emerging Diseases)
- So, if correct, southern Africa will have to learn to live with FMD, i.e. minimise both its direct & indirect impacts
- CBT is a mechanism designed to address the major indirect impact of contagious animal diseases, i.e. the trade effects of commodities not produced within disease-free areas
- For a number of reasons CBT cannot flourish if background control of FMD is inadequate
  - CBT benefits from improved FMD control generally
- So FMD control & CBT application need to be complementary (or, at least, not incompatible)
- The question is therefore: How can (1) more effective control of FMD & (2) complementarity between CBT & FMD control be achieved?

## Suggestions (short term)

- Sticking to the same old strategy against FMD management has little prospect of success
  - Time for re-evaluation is overdue!
- Currently FMD outbreaks are considered an unexpected crisis
  - Not logical; therefore all stakeholders need to be made aware that FMD outbreaks will occur in future, probably with increased frequency, & therefore outbreaks need to be anticipated & planned for
  - Better & more honest awareness creation is needed, especially among cattle owners
- Better understanding of the epidemiology of SAT-type FMD among animal health professionals
  - We need to improve our understanding of SAT virus epidemiology and strengths/weaknesses of potential intervention strategies
- The OIE has introduced a new quarantine option in clause 1.c of Article 8.8.22
  - This was requested by SADC Secretariat – ready for exploitation (including potentially in Ngamiland)
  - So its implementation needs to be planned & implemented
- Management of 'outbreaks' of FMD in many SADC countries is more disruptive than the disease itself
  - Due to the imposition of quarantine & movement restrictions lasting many months (3-18+ mths.)
    - probably unjustified based on current understanding of the epidemiology of SAT-type FMD; these practises cause widespread hardship with little or no positive benefit
  - More practical & effective strategies can be developed that would benefit cattle owners of the region (a joint planning exercise planned for near future!)

## Suggestions (longer term)

- Prophylactic vaccination strategies need to be reassessed
- International standards & recommendations do not cater for the SAT-type/wildlife problem
  - International organisations need to be persuaded that this issue needs to be actively addressed (they know about it)
  - 'Progressive Control Pathway for FMD' does not even mention the SAT/wildlife problem
  - SADC was doing a good job in advancing the regional cause until recently but the impetus seems to have dissipated; needs to be rejuvenated

## Conclusion

- The management of FMD in the SADC Region has regressed in the last 15-20 years; that trend therefore needs to be turned around
  - Trying to do more of the same but better is unlikely to be the answer – in fact there are technical reasons why that is a recipe for failure!
- There is an array of potential improvements that could be instituted to improve FMD control & facilitate trade in livestock commodities in FMD-endemic areas like Ngamiland
- However, this is a complex field & selection of the best approach requires research & informed consideration (no magic bullet)