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Reconciling livestock production, wildlife conservation & trade through application of non-geographic disease management solutions for southern Africa



Gavin Thomson & Mary-Lou Penrith



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Background

- Issue needs to be considered against the rural development polemic in s-SA/SA characterised by:
 - Extremely high levels of population growth & poverty
 - Arid or semi-arid conditions; 26% of s-SA & half of SA is arid/semi-arid – home to >60 million people
 - S & E Africa have unique & still relatively abundant wildlife populations & wilderness areas
 - Until recently considered to have limited economic value
 - Most rural societies in s-SA are livestock-oriented
 - Widespread belief that SA has competitive advantage in livestock production
 - Not so!
 - s-SA is the global TADs champion!

Other factors

- Global phenomenon of regional economic integration
 - e.g. the FTA established between the SADC, COMESA & EAC (encompasses half of all African countries – from Egypt to RSA)
 - trade barriers (tariff & non-tariff) have been identified as a major impediment to regional integration & economic development in s-SA
 - limited trade differentiation in SA countries also identified as a limiting factor in trade success (e.g. most countries desire to export fresh or frozen beef)
- Result: trade in animal commodities/products faced by limited market access ⇒ private sector under-investment in livestock ⇒ poor productive capacity & lack of competitiveness (vicious circle)

The fundamental issue that concerns us

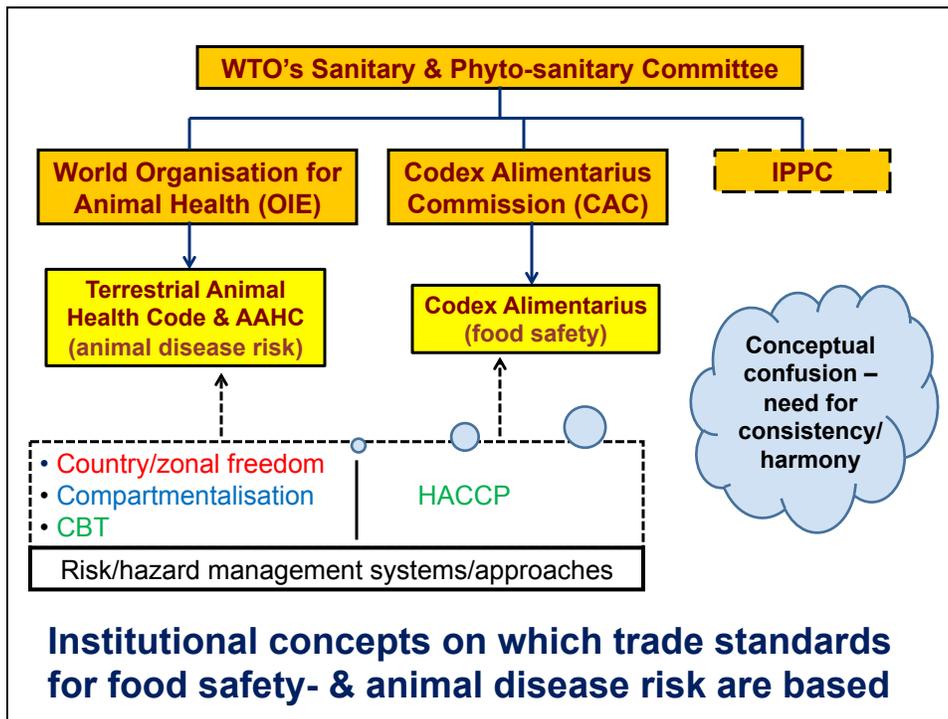
- How to achieve balanced rural development in our region
 - our concern/responsibility is facilitating the utilization of animal resources to achieve that goal
- Elements of rural development to which animal resources can contribute:
 - food production (security of supply & safety for people)
 - improved livelihood generation ⇒ poverty alleviation
 - wildlife conservation & its sustainable utilization
- These need to happen concurrently for rural development to progress effectively
 - livestock production & effective wildlife conservation are both vital for balanced rural development

The fly in the ointment

- ⇒ Standards & practices associated with international trade in animal commodities & products
- Arises from conflict between principles of biodiversity conservation & those on which management of infectious disease are based
 - biodiversity conservation is founded on the need to maintain ‘connectedness’ between biota (maintenance of gene flows etc necessary for healthy populations)
 - conversely, management of high impact TADs has been historically based on geographic separation of infected & uninfected populations
- Obviously this conflict needs to be ameliorated
 - possible because there is a variety of ways in which TADs transmission risks can be effectively mitigated

Commodity-based trade (CBT)

- In 2004, to overcome this problem CBT (non-geographic approach to manage animal disease-associated trade risk) was proposed
 - caused much controversy but now more-or-less accepted as an approach (see OIE home page – www.oie.int)
 - but purely CBT standards are not widely available or accepted by many countries as the basis for either import or export (including within SADC & Tripartite FTA)
 - more effort in this connection needed ⇒ SADC in ideal position to champion the cause
 - also seems OIE is moving in this direction
- The important issue is effective & reliable risk amelioration – can be non-geographic
 - not a case of one size fits all!



Summary of similarities/differences between different risk/hazard systems/approaches

Concept	Brief description	Compatibility with non-geographic approach
Country/zonal freedom	Macro-scale (geographic) freedom from infection	-
Compartment-alisation	Establishment(s) with common biosecurity system managed for animal disease control	?
CBT	Biological risk managed according to the risk posed by the commodity or product concerned	+
HACCP	Same as CBT	+

Value-chain management of biological risk

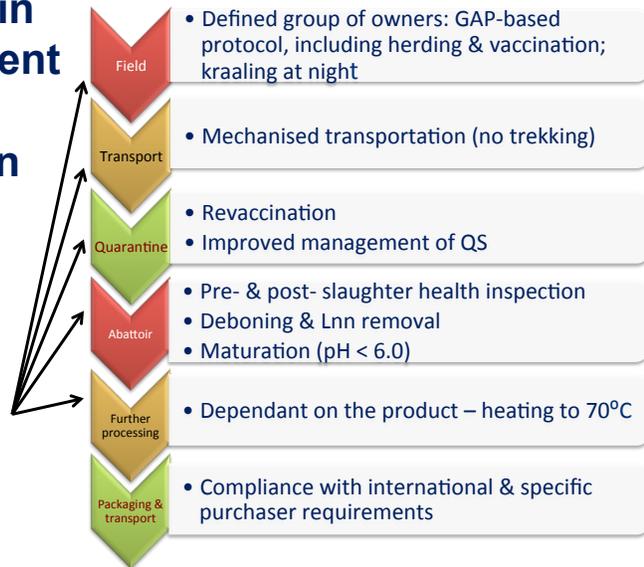
- Now accepted that for food safety risks/hazards need to be managed across entire value chain
 - food production in modern world is increasingly complex involving many links along the production chain, all adding value (often involving a variety of companies in different locations – some transnational)
 - requirement for appropriate management of risk across the entire chain is axiomatic
- Question: What is/are the most appropriate system(s) whereby biological risks (FS & AD) can be managed on non-geographic basis?
 - HACCP & CBT!
 - turns out both are close to identical in concept!

Commonalities between HACCP & CBT approaches; i.e. both involve:

- Identification of all the hazards potentially associated with a particular commodity or product
- Identification of effective mitigation measures for each hazard ⇒ selection of the most appropriate
- Application of all the necessary measures for each hazard along the value chain
- Auditing & certification to ensure the identified measures have actually been applied
- ⇒ HACCP has additional vital attribute: Employment of critical control points (CCPs)
 - CCPs for food safety & animal disease management can be combined/integrated across value chain

Value-chain management of beef production in Caprivi

HACCP-based management of critical control points (CCPs) & integration with those for FS



Caprivi beef/beef products safe to trade internationally & produced in an environmentally compatible way

Conclusion

- The system outlined (integration of HACCP & CBT approaches) provides a basis for simple & effective management of food safety/animal disease risks using internationally accepted methods ⇒ incentive for commercial investment in livestock production ⇒ improved livelihood generation
- Enables accommodation of wildlife conservation & associated enterprises with livestock production ⇒ amelioration of a long-standing conflict
- Therefore, provides the potential for more balanced rural development throughout s-SA ⇒ brighter & sustainable economic future for our region