Stellenbosch UNIVERSITY IYUNIVESITHI UNIVERSITEIT

AWEI African Wildlife Economy Institute

Fragmented Systems, Shared Risks

A One Health Perspective on South Africa's Game Meat Sector

Lydia Daring Bhebe

2nd General Meeting SafeGameMeat, Bucharest, Romania

9–10 June 2026

Background & Study Context

GAME MEAT EXPANSION

Government target to double game meat production by 2036

GAME ANIMAL HEALTH

Current game animal health conditions and infectious disease risks

FOOD SAFETY SYSTEMS

Health and safety practices, food safety systems, and regulatory frameworks

ENVIRONMENTAL SUSTAINABILITY

Management practices, sustainability implications, and effects of intensification

How do game animal health, food safety, and environmental sustainability interact within South Africa's game meat sector?

Study Design & Analytical Approach

EXPERT SAMPLING

- Purposive + snowball sampling
- 19 experts
- Wildlife health, veterinary services, meat inspection, food safety, ranching, environmental management, policy, industry governance and research

SEMI-STRUCTURED INTERVIEWS

- March – June 2025
- 45 – 90 minutes
- Conducted online via Teams/Zoom
- Audio-recorded and transcribed verbatim

HYBRID THEMATIC ANALYSIS

- Deductive coding by three study domains
- Inductive coding of emerging themes
- Managed in ATLAS.ti 25.0.1
- Triangulated with policy documents and literature

One Health lens applied analytically, not imposed during interviews.

Different Disease Risks Require Different Responses

Note: Categories reflect primary management implications; some diseases overlap across categories.

Each category is shaped by different drivers, affects different populations, and requires different responses.

1 Trade-linked Diseases

FMD | TB | Brucellosis | RVF

Affected groups
- Wildlife, livestock, producers, workers/handlers, trade actors

Main impact
- Movement restrictions, certification requirements, market access, trade disruption

Detected / controlled through
- Surveillance, testing, zoning, permits, quarantine, certification

Main challenge
- Under-detection, uneven enforcement, and risky animal movement

2 Wildlife–livestock Interface Diseases

MCF | Snotziekte

Affected groups
- Mainly livestock/cattle; wildlife as carriers

Main impact
- Livestock losses; limits integration of wildlife and livestock

Detected / controlled through
- Species separation, fencing, grazing timing, land-use planning

Main challenge
- Risk depends on where and when wildlife–livestock contact occurs

3 Ecologically Mediated & Inspection-managed Conditions

Ticks | Cysticercosis | Parasites (incl. other conditions)

Affected groups
- Wildlife, harvested animals, processors/inspectors, consumers

Main impact
- Animal morbidity; carcass treatment/condemnation; processing-stage losses

Detected / controlled through
- Clinical observation, management practices, post-mortem inspection

Main challenge
- Shaped by ecological and management conditions, often detected late

4 High-impact Episodic Diseases

Anthrax

Affected groups
- Wildlife populations, livestock, workers/nearby communities

Main impact
- Sudden mortality, outbreak risk, emergency response

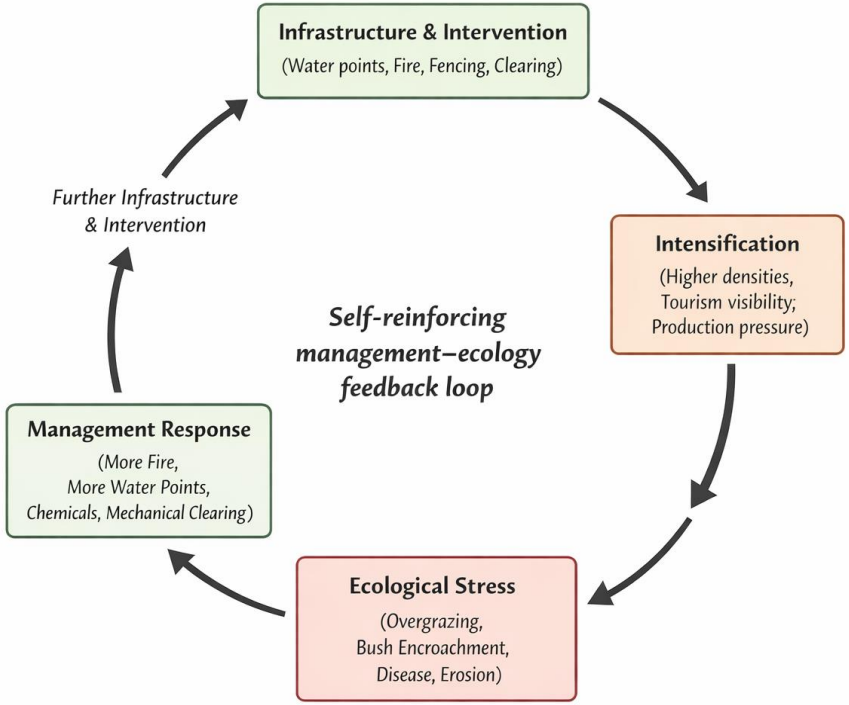
Detected / controlled through
- Mortality events, reporting, outbreak investigation, containment

Main challenge
- Low-frequency but severe; requires rapid response

Food Safety Depends on the Market Pathway

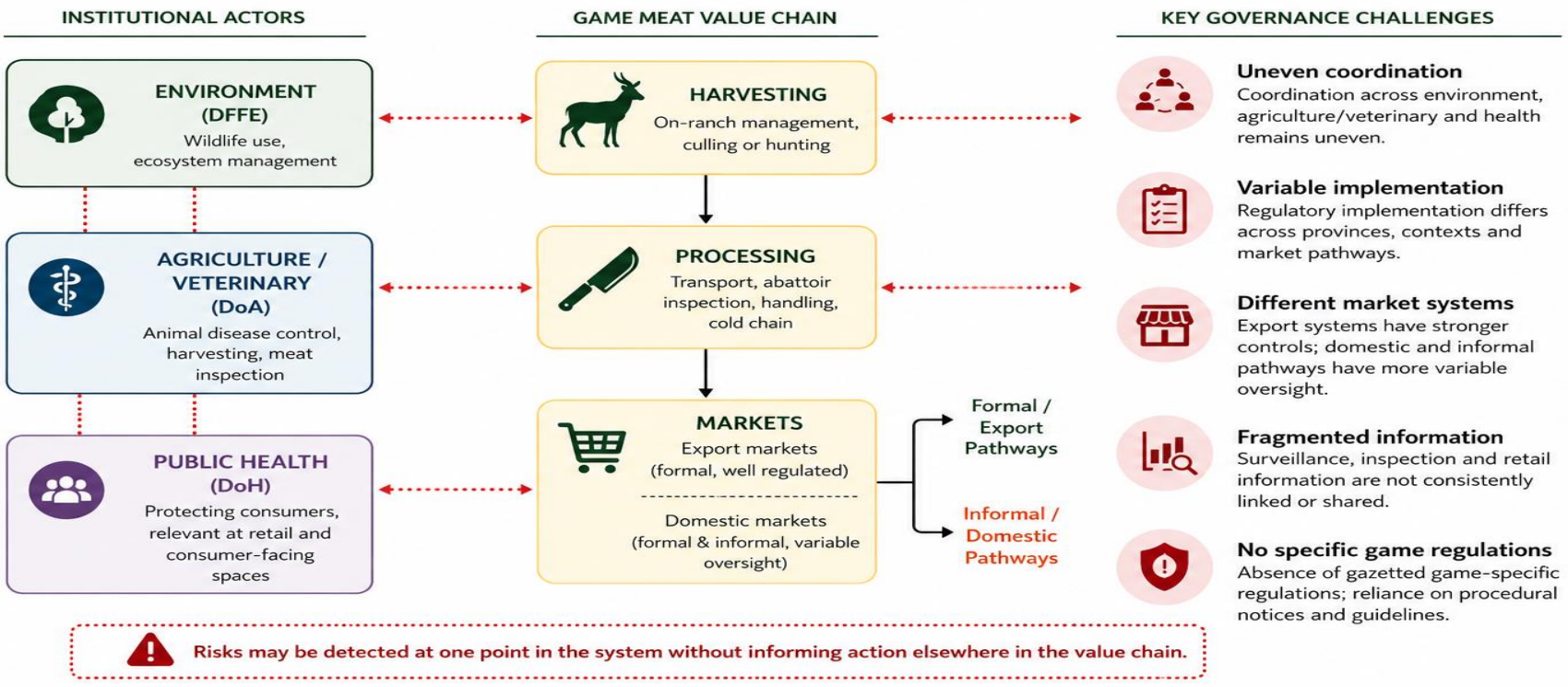
Export chain	Domestic formal retail	Informal / local
Strong traceability	Partial / retailer-driven	Minimal or undocumented
Routine inspection	Variable inspection	Limited or absent
Routine testing/audits	Inconsistent testing	Rare testing
Clearer documentation	Uneven documentation	Weak follow-up

Ecosystem Health as both a condition and an outcome

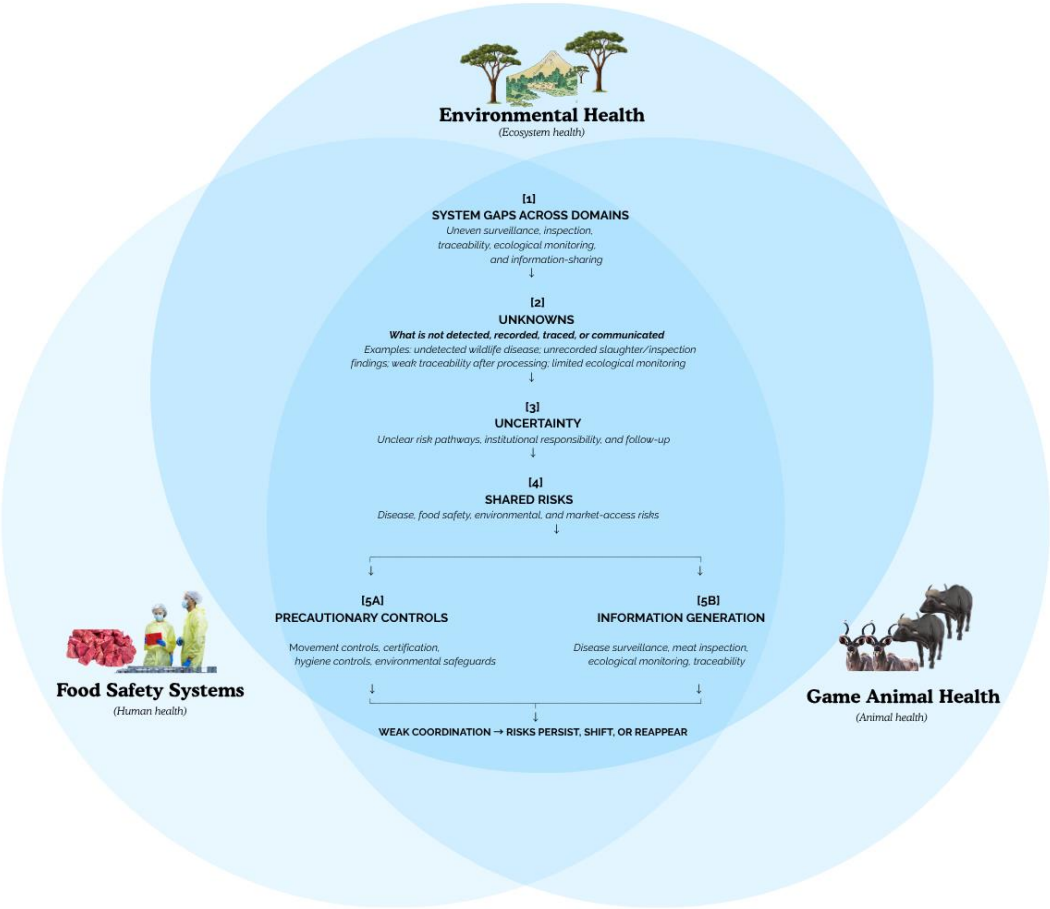


Connected Risks, Fragmented Governance

Risks move across the value chain, but information and responsibility remain split across institutions and systems



From Interconnected Risks to One Health Governance



Implications for Safer Game Meat Systems

THANK YOU

Special thanks:

Stellenbosch
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AWEI
African Wildlife
Economy Institute

CST
Centre for
Sustainability Transitions

Jamma
Conservation &
Communities

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EUROPEAN COOPERATION
IN SCIENCE & TECHNOLOGY

Safe
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For more info on AWEI's game meat research priorities and projects:
https://wildlifeeconomy.info/impact-reports/awei-2025-impact-report