

July 2026

**28th Meeting of the WOAHS
Sub-Commission for Foot
and Mouth Disease in South-
East Asia and China**

**29-30 July 2026, Ulaanbaatar,
Mongolia**

**Experiences and lessons learned from responding to FMD SAT1
incursions in Southern Africa.**

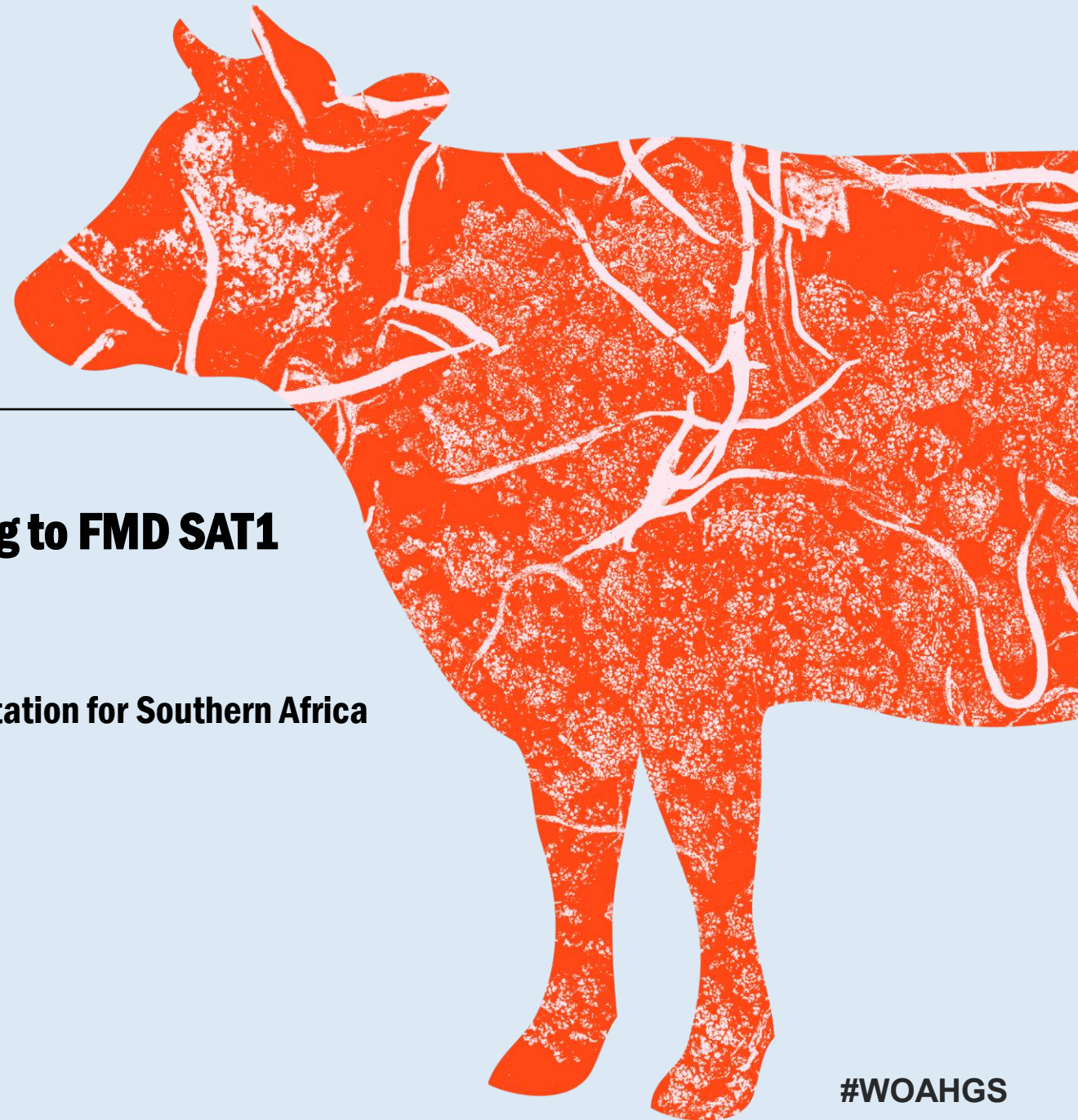
Presented by: Moetapele Letshwenyo, Sub-Regional Representation for Southern Africa



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Presentation Layout

- Importance of livestock in Southern Africa
- History of Foot and Mouth Disease (SATs) in Southern Africa
- Preparedness and Response to FMD SAT Outbreaks in Southern Africa.
- FMD Situation Currently
- Impact of FMD
- Contributions from WOAHA & Partners to the control of FMD
- Reflections on SAT 1....
- Conclusion



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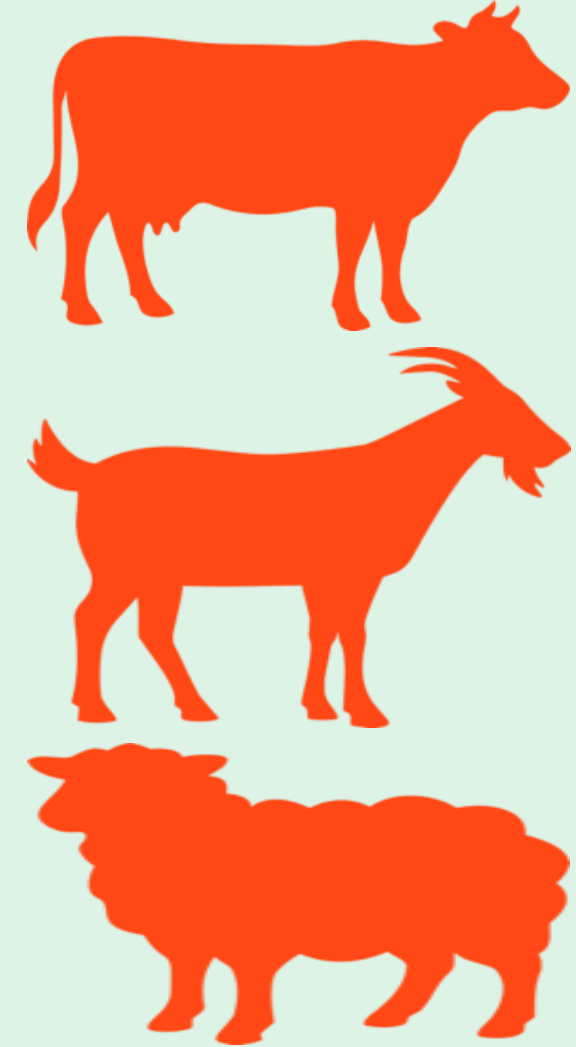
Importance of Livestock In Southern Africa

- **diverse animal population** (livestock, wildlife, aquaculture, etc)
- Livestock constitute an **important natural resource**;
- < 60 % region's total **land area suitable** for livestock farming;
- Contributes significantly to **Food Security across SADC** region
- farm animals are a **source of food, skins, fertiliser, traction draught power, raw materials for industry**, etc..
- An estimated 75% out of the above livestock population is kept under **smallholder traditional farming systems**.
- **livestock populations** estimated at; 64m cattle, 39m sheep, 38m goats, 7m pigs, 1m horses, & 380m poultry (*Source: SADC Website*)
- **Diseases presents one of the most important constraints** to sustainable livestock production and disrupts trade.
- WOAHA Develops **standards on AH, AW and VPH** – important in disease prevention, control and ultimately safeguards trade in animals and animal products.



History of FMD in Southern Africa

- FMD has existed in Southern Africa since the early 1930s (or before)
- Southern Africa is particularly associated with the **SAT serotypes**, often maintained in African buffalo populations.
- With **significant trade and economic impacts** through loss of export markets, reduced animal productivity. Control expenses, reduced farmer income, food security threats, etc
- **Movement** of infected livestock and wildlife interaction are major drivers of outbreaks.
- Disease **prevented and controlled** by movement control, surveillance, vaccination, biosecurity, wildlife management, etc. – some attaining free country or zonal status from WOA, hence protecting beef & dairy export industries.
- Countries free from FMD gain **significant trade advantages** under standards developed by World Organisation for Animal Health.



FMD Serotypes in Southern Africa

- The SAT serotypes were first identified in southern Africa, where **African buffalo (*Syncerus caffer*)** act as their important maintenance hosts and reservoirs.
- **SAT 1, SAT 2, and SAT 3** are antigenically distinct serotypes of FMDV, and immunity to one serotype does not protect against the others (**no cross protection**) – important for vaccination).
- Cause **similar disease**, and their prevention/control/eradication strategies are similar
- Each serotype can **cause disease individually or concurrently** with other serotypes
- Historically all **cause mild diseases** which can easily be missed (surveillance is important)
- **Cattle are very susceptible**, while sheep, goats, pigs and most wild cloven-hoofed antelopes are hardly ever affected, however **recently reports of virulent SAT 1** in dairy cows and pigs in South Africa, and Kudus in Botswana
- **SAT 2 is the most widespread in Southern Africa**, and is often associated with transboundary outbreaks affecting cattle, it is also unstable and difficult to make/adapt vaccines for.

FMD Serotypes in Southern Africa

- SAT serotypes show genetic diversity and are divided into multiple topotypes and lineages. **(making vaccine production challenging and expensive)**
- **Recently, SAT 1** expanded its epidemiological range into parts of the Middle East, North Africa, Europe and East Asia, raising international concern about further spread.
- For SADC situation, a regional approach is necessary.
- FMD control is a *public good* – meaning the Public Sector (Government) **leads** all aspects of the prevention, control and eradication
- All stakeholders (value chain players) need to be involved
- Resource limitations (financial, human resources, infrastructural, etc) is a challenge
- **Public-Private Partnership (PPP)** - Public-private partnership is a **joint** approach in which the public and private sectors agree **responsibilities** and share **resources** and **risks** to achieve common **objectives** that deliver **benefits** in a **sustainable** manner (WOAH Definition).



Preparedness and Response to SATs Outbreaks in the Southern African COntext

Movement control

- **Controlled movement** of livestock, animal products, vehicles, and equipment from affected areas.
- Establish **movement control zones** – animals require inspection and permit to move between zones
- **Specialised zones** like protection, compartments and containment zones are used.
- **Traceability** of animal movements and epidemiological investigation to identify infection sources and potential spread pathways

Surveillance and early warning

- **active and passive surveillance**, to enable rapid detection, reporting and response
- **Requires operational structures** – e.g. Veterinarians and Animal Health Technicians deployed strategically
- **Risk based surveillance** – e.g. Identify high-risk livestock movement routes, markets, border areas, and wildlife-livestock interfaces, and apply appropriate surveillance and mitigation measures (risk-based surveillance)

Laboratory Diagnostic Capacity

- Supports surveillance, through **virus confirmation and characterisation**.
- **Reference Laboratories** play an important role.

Preparedness and Response to SATs Outbreaks in the Southern African COntext

Vaccine preparedness

- Availability of **good quality vaccines in good quantities**
- Review **vaccine matching against** circulating SAT1 viruses.
- Maintain **vaccine/antigen banks** where feasible - immunity is serotype-specific.
- **Emergency or strategic risk-based vaccination using vaccines matched to the circulating SAT 1 strain.**
- Monitor **vaccine effectiveness through post-vaccination surveillance.**

Biosecurity

- Enforce **cleaning and disinfection** of farms, transport vehicles, and equipment.
- **Limit farm access and prevent** contact between infected and susceptible animals.

Wildlife-livestock interface management

- African buffalo are important reservoirs of SAT serotypes – must be separate from livestock
- Strengthen separation, and surveillance in buffalo-livestock interface areas.

Contingency planning

- Establish emergency response plans.
- Conduct simulation exercises and outbreak response drills.
- Ensure availability of diagnostic kits, PPE, disinfectants, and vaccines where appropriate.

Awareness and Education

- Train field veterinarians and farmers to recognize clinical signs quickly.
- Public awareness

Legislation – for compliance enforcement



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FMD Situation in 2016

Countries Free From FMD, where Vaccination is not practiced

- Eswatini
- Lesotho
- Madagascar

Countries with Zones Free From FMD, where Vaccination is not practice

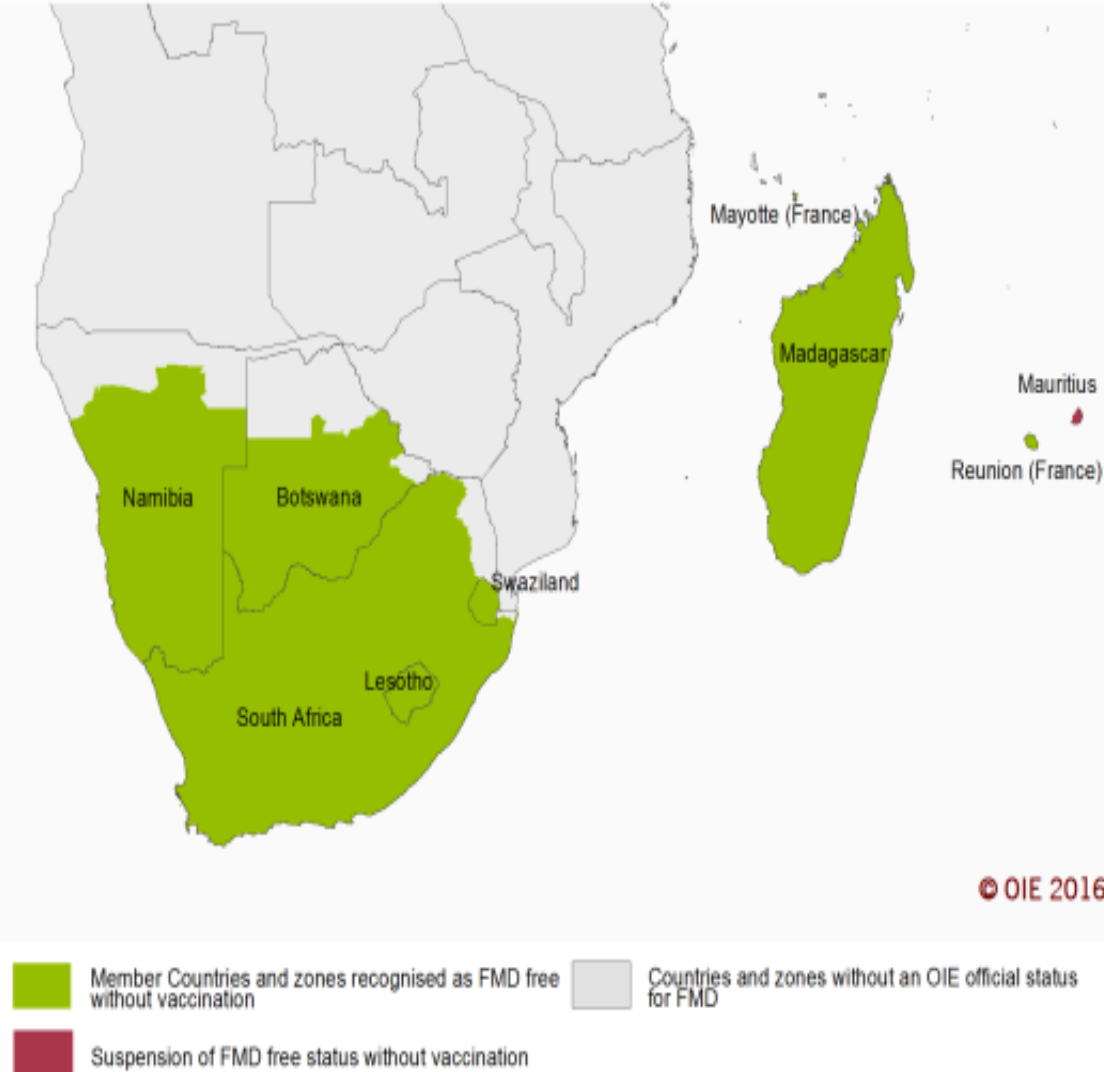
- Botswana
- Namibia
- South Africa

SADC Countries without Status

- The rest

SOUTHERN AFRICA: OIE Member Countries' official FMD status map

Last update August 2016



FMD Situation in 2026

Countries Free From FMD, without Vaccination

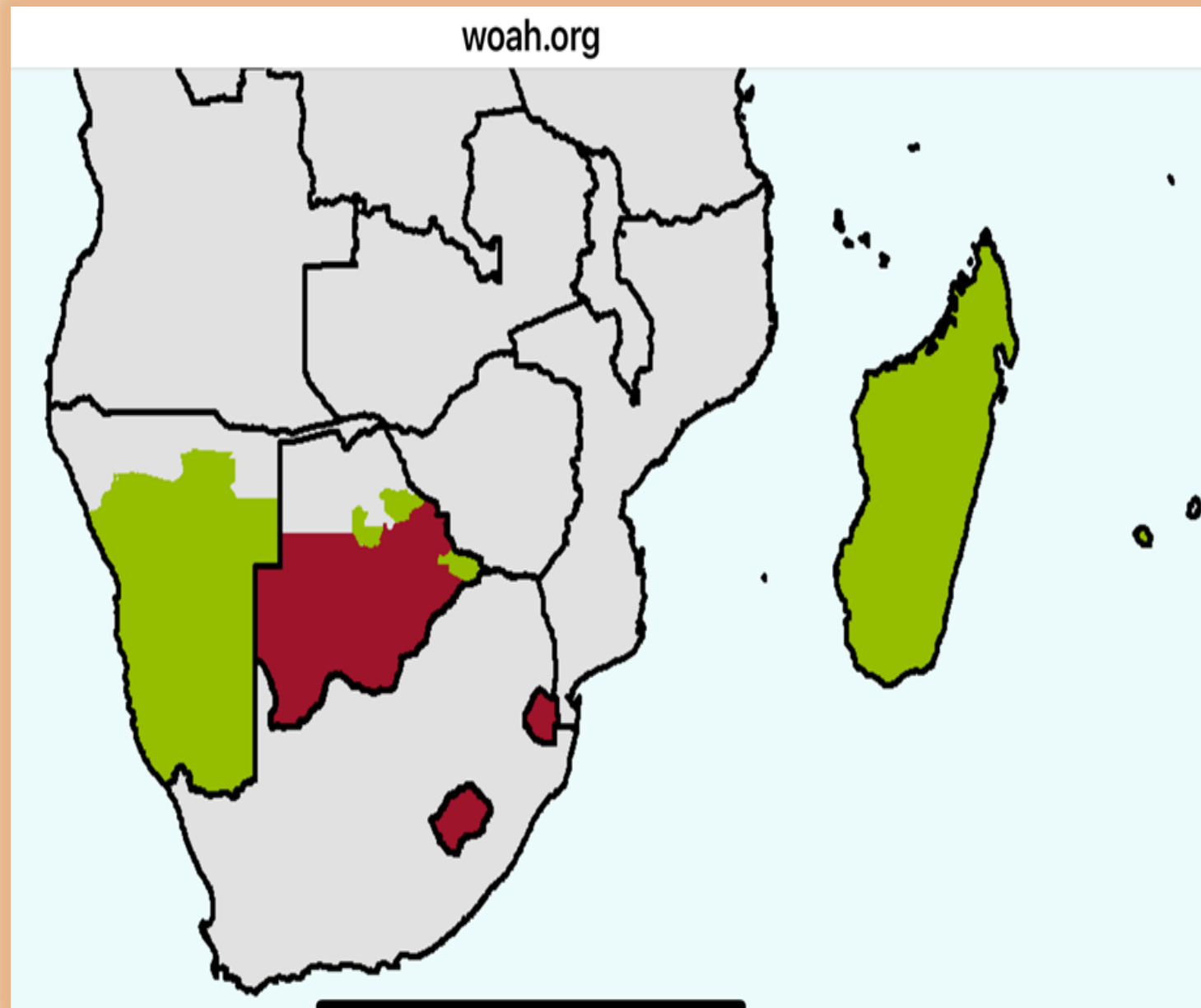
- ~~Eswatini~~
- ~~Lesotho~~
- Madagascar

Countries with Zones Free From FMD, Without Vaccination

- ~~Botswana~~ (*free zone significantly reduced*)
- Namibia
- ~~South Africa~~

SADC Countries without Status

- The rest



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Impacts of FMD

- Loss of disease-free status and market access
- Direct economic losses at farm level
- Cost of disease control and eradication
- Disruption of livestock value chains
- Livelihood and food security impacts
- Long-term reputational damage
- essentially an outbreak of FMD is not just an animal health issue, but national economic shock, a trade crisis, and a test of veterinary system resilience.



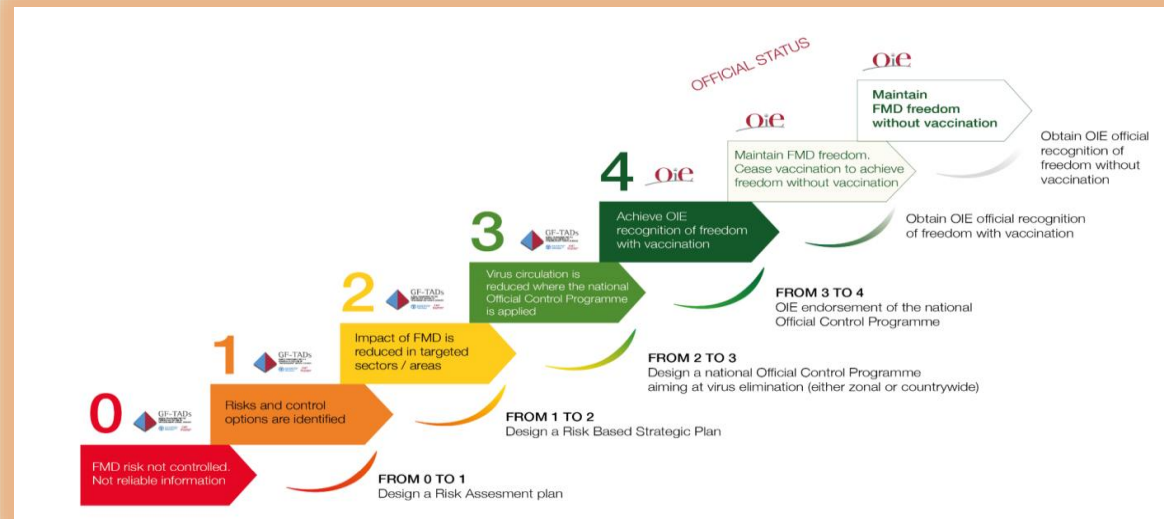
Activities of WOAAH (and Partners) on FMD

- **Specific Assistance by WOAAH;**
 - WOAAH International Standards on Animal health, Welfare, & VPH
 - Where necessary support Members with their availability and interpretation
 - Assist Members with Information, Education and Communication material (Website)
 - Technical Assistance in controlling the outbreak and regaining the status
 - Capacity building, - workshops, seminars, conferences, etc.
- In addition **WOAH collaborates with Partners** in assisting Members in the control of animal Diseases;
- GF-TADs framework – WOAAH and FAO collaborates with partners (AU, RECs, etc)in the prevention, control and eradication of animal priority diseases, such as FMD
- GF-TADs - developed the Global FMD Control Strategy (2012 – 27), with overall objectives of reducing the global FMD burden in affected countries and maintaining the status of countries with WOAAH-granted FMD-free statuses.



Activities of WOAAH (and Partners) on FMD

- The Global FMD Control Strategy has three interlinked components:
 - 1. Global FMD control;
 - 2. Strengthening of Veterinary Services;
 - 3. Prevention and control of other major diseases of livestock.
- the GF-TADs FMD Working Group organizes regional Road Map meetings, to coordinate FMD control -national progress in disease control is shared, and regional goals are identified.
- At national level, the Progressive Control Pathway for FMD (PCP-FMD) tool is used to support countries outline sustainable national control plans.



Reflections on SAT 1

- In Southern Africa, the three serotypes occur with being SAT 2 currently the most predominant serotype, followed by SAT 1 and 3
- The three serotypes normally cause mild disease, but there are unconfirmed/subjective reports of increased virulence associated with serotype 1 also uncharacteristically affecting sheep, goats, pigs and kudus.
- **SAT1 is currently the most important emerging FMD serotype globally, since crossing over from Africa, to the Middle East, and further to parts of Europe and East Asia.**
- current epidemic demonstrates that SAT1 should no longer be viewed solely as a Southern African wildlife-associated serotype, only, but a virus with capacity for sustained transcontinental spread, establishment in cattle production systems, invasion of FMD-free or SAT1-free regions, with major impacts on trade and food security.
- The global challenge could be amplified by **immunologically naïve livestock populations**.
- **Long-distance trans-pool movement** - The epidemic demonstrates a rare example of an African FMD lineage moving between major FMD ecosystems ("virus pools") into the Middle East, Europe and Asia.
- **multiple transmission pathways** - livestock trade, informal animal movements, cross-border movements, as major drivers of spread.
- **WOAH calls of action on FMD (SAT 1) International Spread (15 April 2026)**

Conclusion

- FMD remains one of the world's most important transboundary animal diseases.
- Its transboundary nature calls for a Regional Approach (success stories in South America)
- WOAHA remains committed to assist Members.



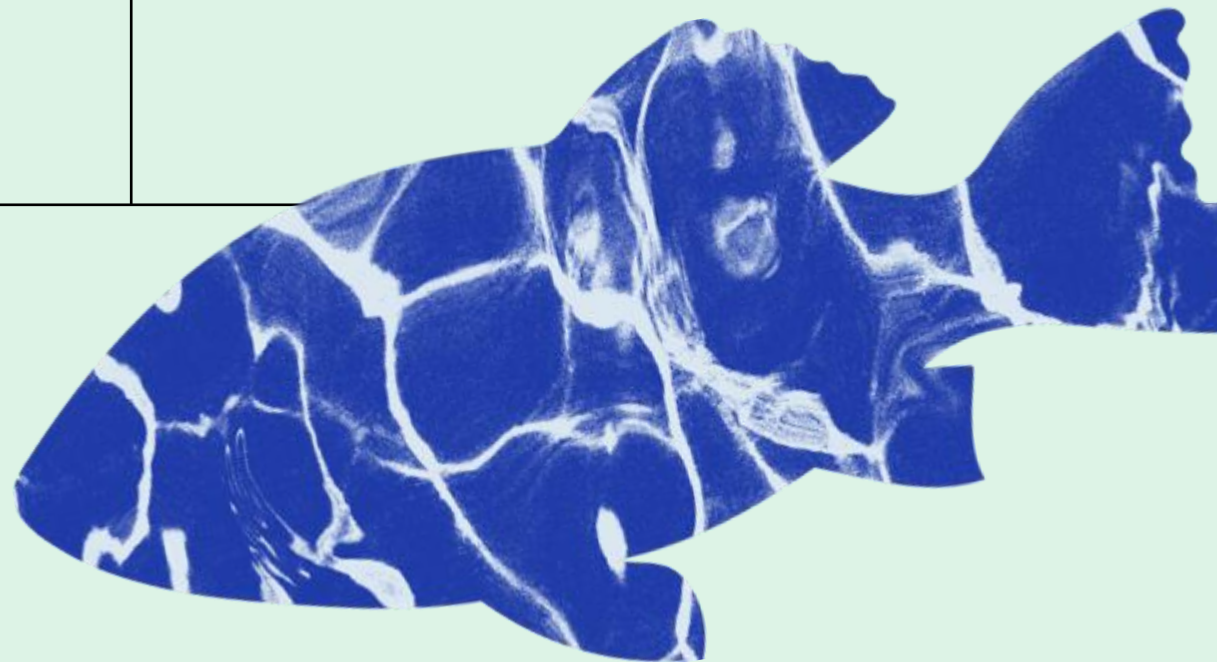
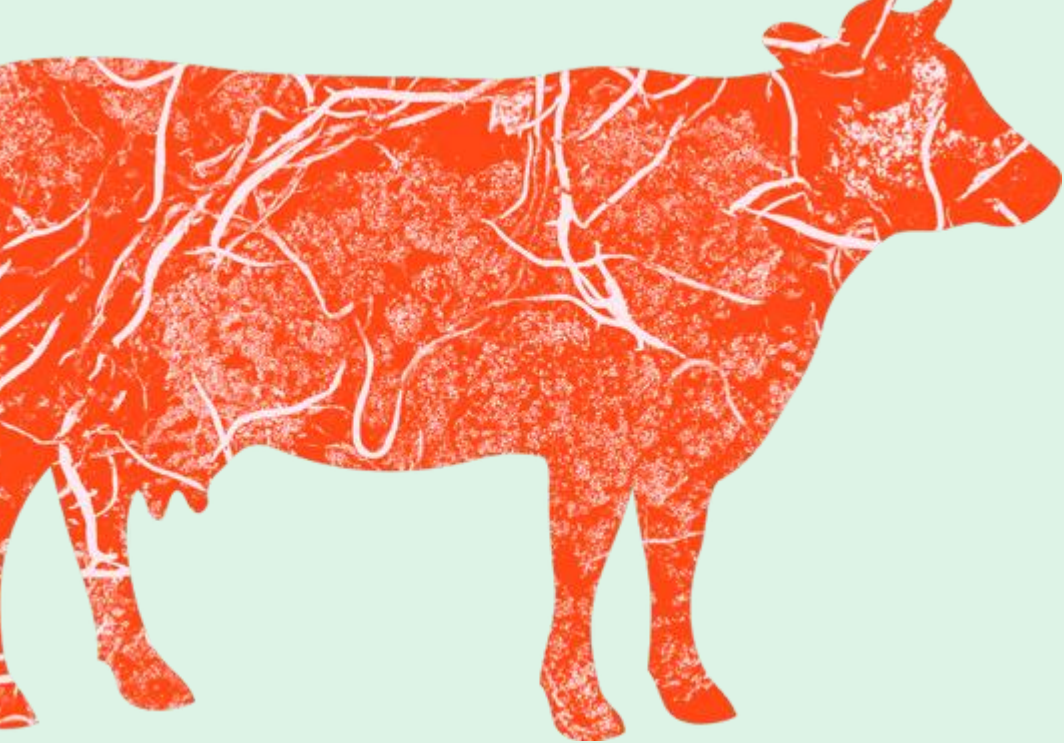
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Thank you



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