

GF-TADs Foot and Mouth Disease Risk Assessment Training Workshop

19 - 21 September 2023 Johannesburg, South Africa



FMD Situation in Africa



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Member of the GF-TADs FMD Working Group

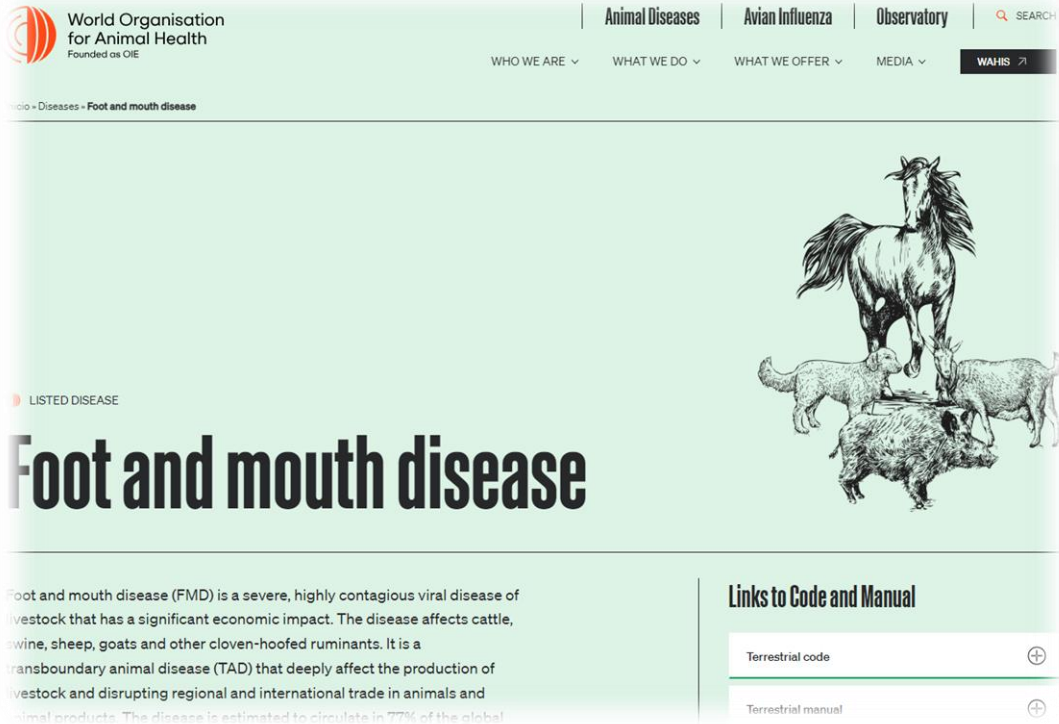
GF-TADs FMD Working Group

Melissa McLaws, Madhur Dhingra, Muhammad Arshed (FAO)

Neo Mapitse, Bolortuya Purevsuren, **Mohamed M. Sirdar** (WOAH)

Fabrizio Rosso (EuFMD)

What is FMD?



World Organisation for Animal Health
Founded as OIE

Animal Diseases | Avian Influenza | Observatory | SEARCH

WHO WE ARE | WHAT WE DO | WHAT WE OFFER | MEDIA | WAHIS

Home » Diseases » Foot and mouth disease

LISTED DISEASE

Foot and mouth disease

Foot and mouth disease (FMD) is a severe, highly contagious viral disease of livestock that has a significant economic impact. The disease affects cattle, swine, sheep, goats and other cloven-hoofed ruminants. It is a transboundary animal disease (TAD) that deeply affect the production of livestock and disrupting regional and international trade in animals and animal products. The disease is estimated to circulate in 77% of the global

Links to Code and Manual

- Terrestrial code
- Terrestrial manual



THE GLOBAL FOOT AND MOUTH DISEASE CONTROL STRATEGY

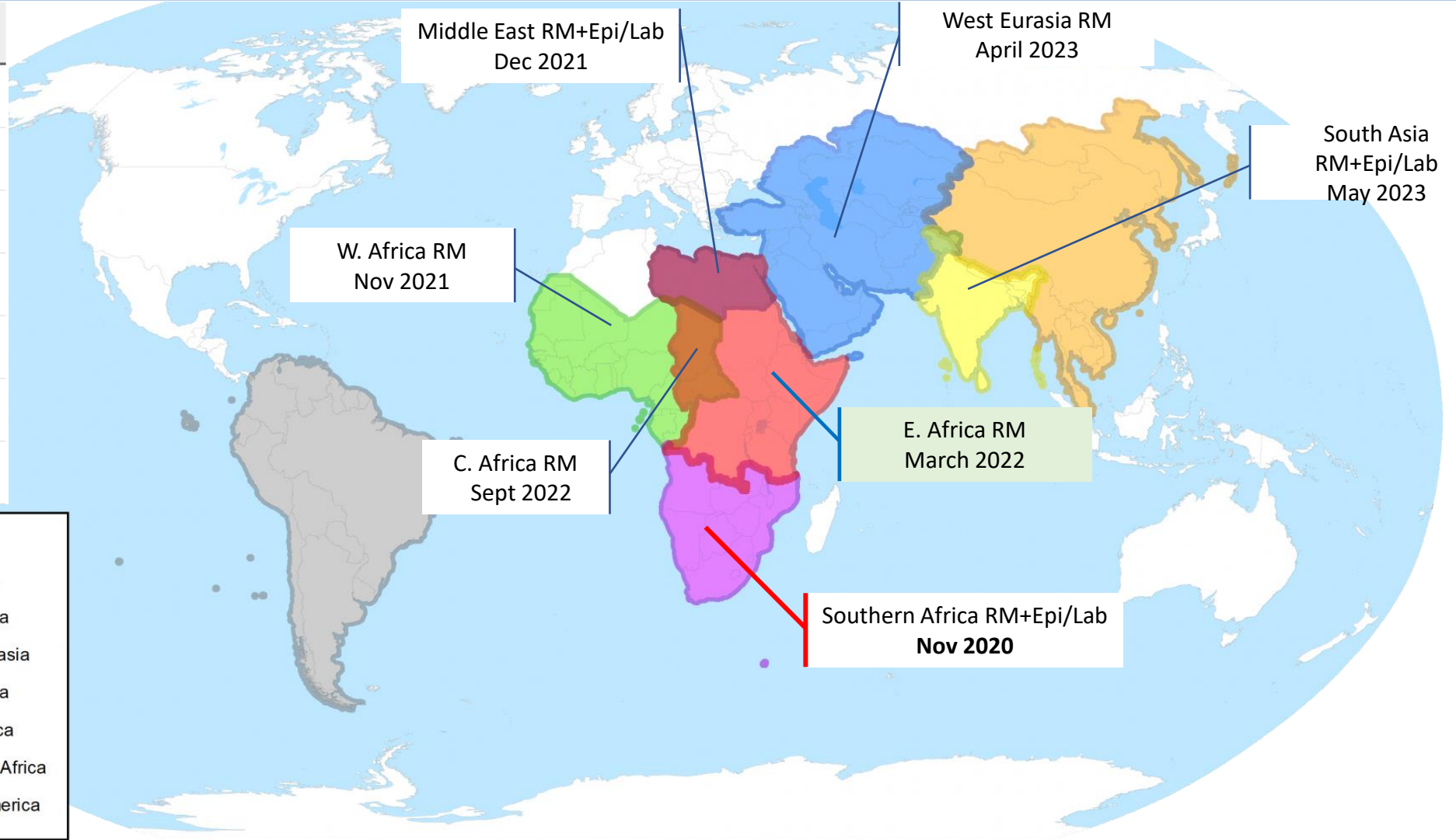
STRENGTHENING ANIMAL HEALTH SYSTEMS THROUGH
IMPROVED CONTROL OF MAJOR DISEASES

2012



FMD Regions: Regional FMD Roadmap approaches aligned to FMD Virus Pools

| POOL | SEROTYPES PRESENT |
|------|---------------------------|
| 1 | O, A, Asia-1 |
| 2 | O, A, Asia-1 |
| 3 | O, A, Asia-1 |
| 4 | O, A, SAT 1, SAT 2, SAT 3 |
| 5 | O, A, SAT 1, SAT 2 |
| 6 | SAT 1, SAT 2, SAT 3 |
| 7 | O, A |



FMD Pool

- Pool 1: East Asia
- Pool 2: South Asia
- Pool 3: West Eurasia
- Pool 4: East Africa
- Pool 5: West Africa
- Pool 6: Southern Africa
- Pool 7: South America

FMD PCP Africa?



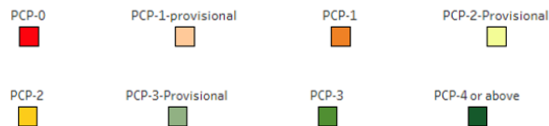
East Africa



2012

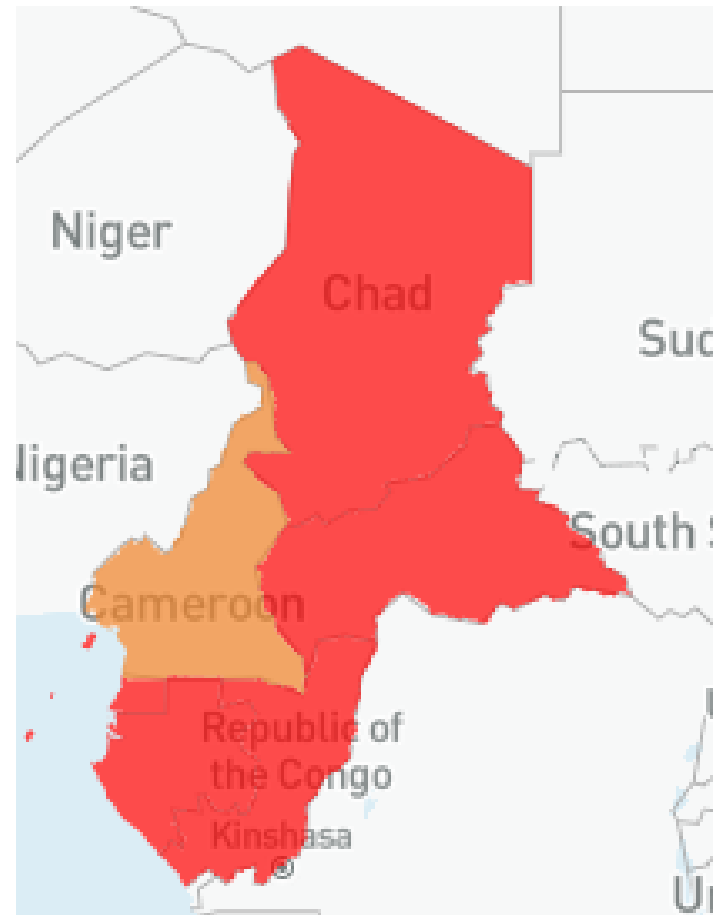


2023



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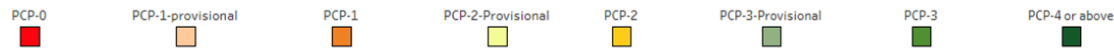
Central Africa



2018

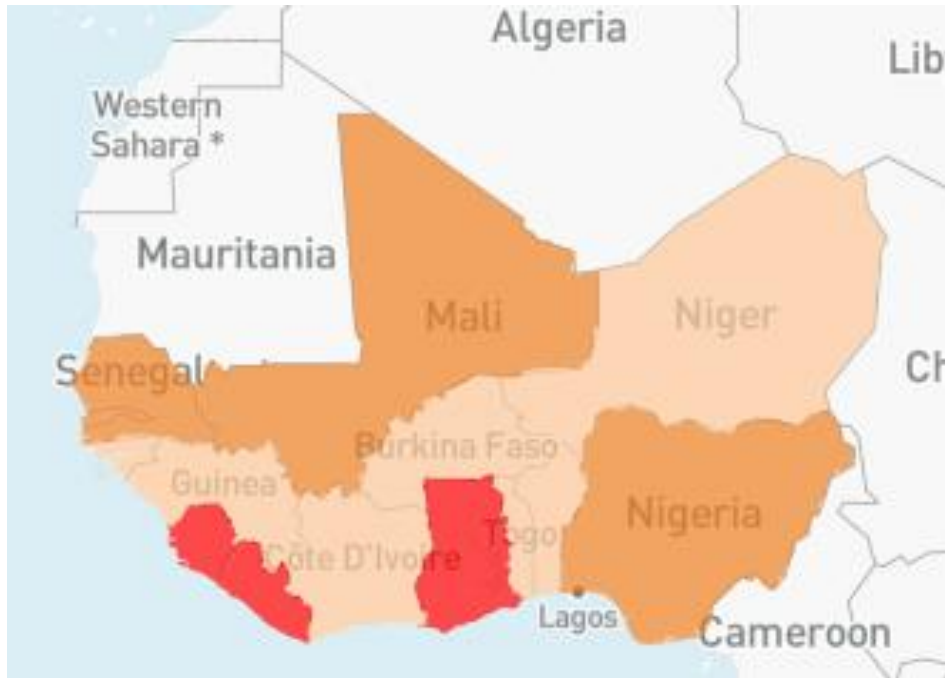


2023

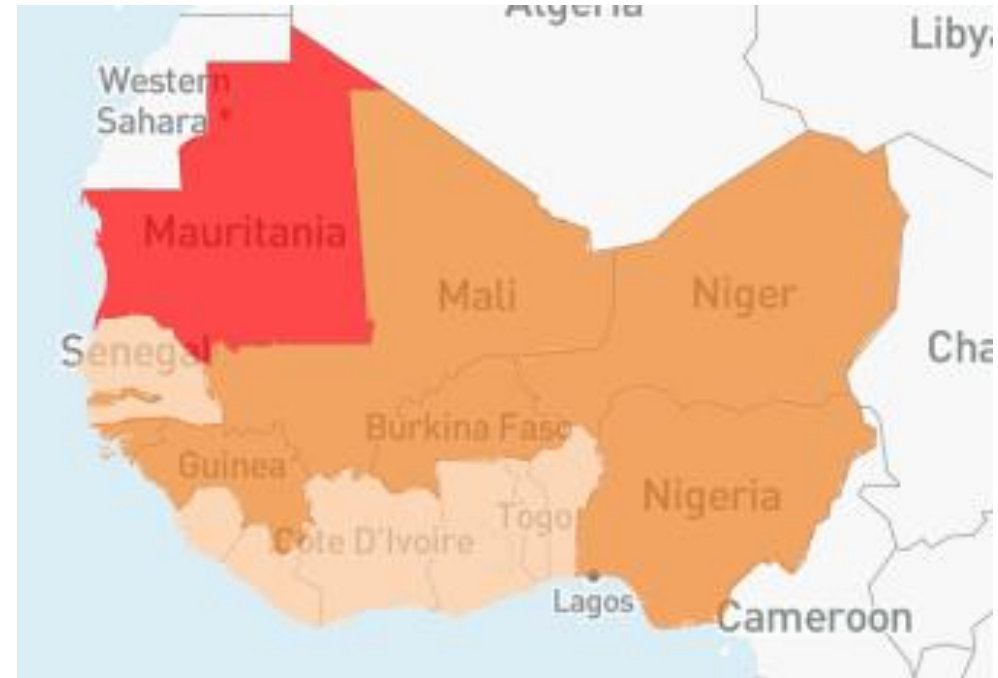


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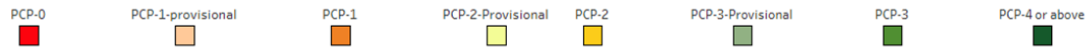
West Africa



2016

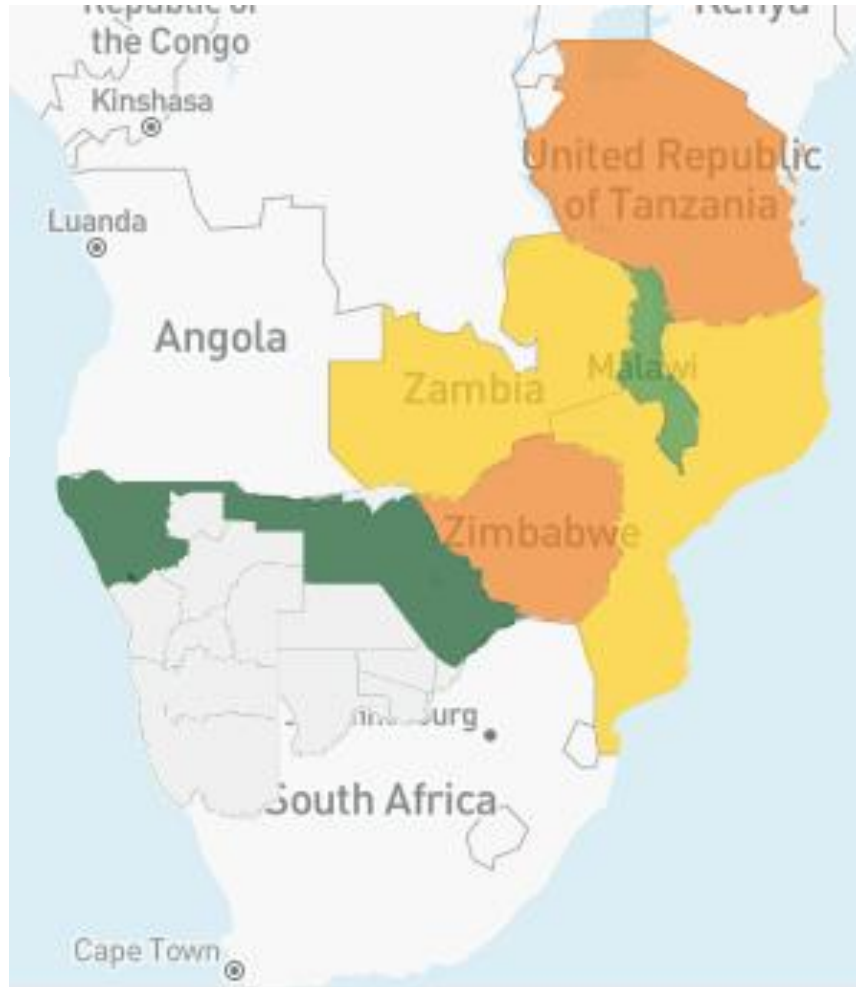
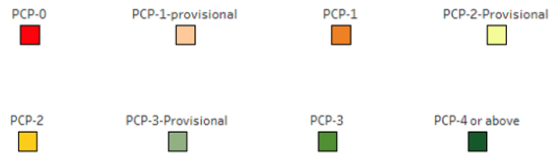


2023

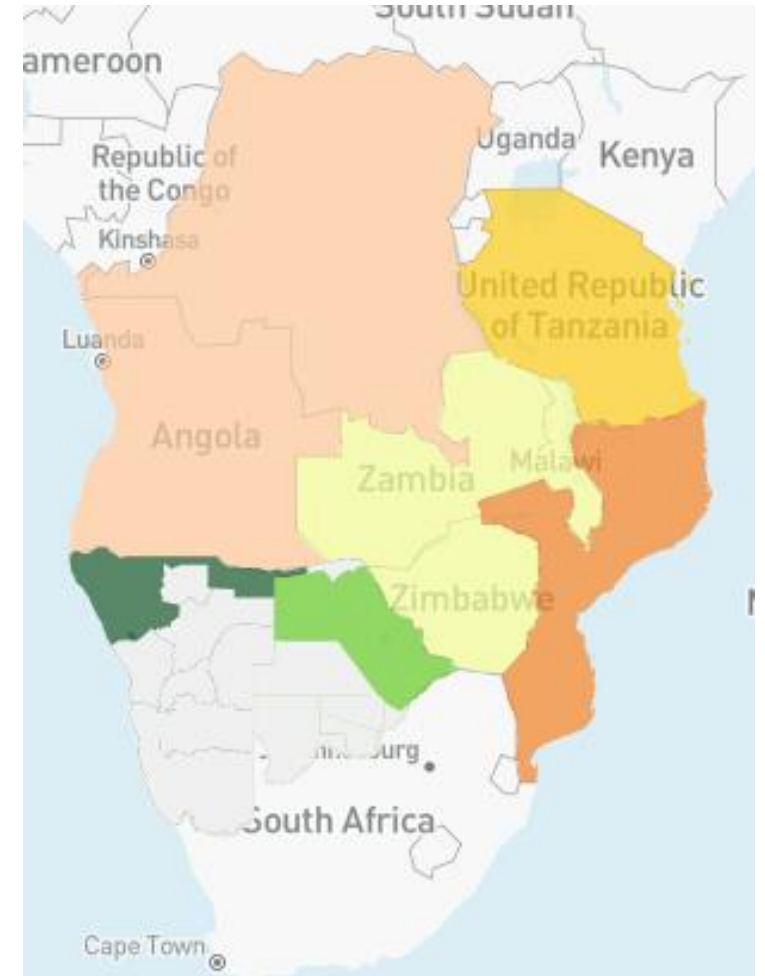


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Southern Africa

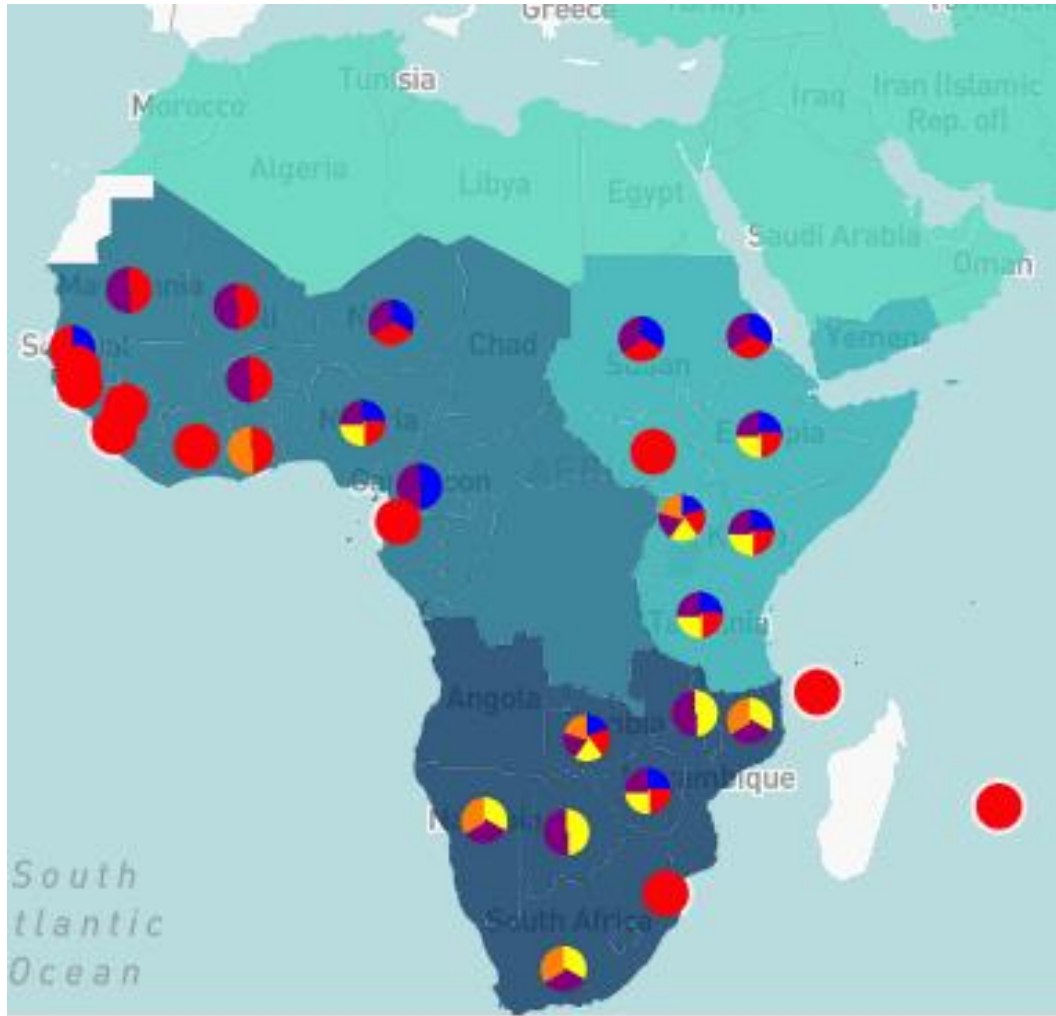


2012



2023

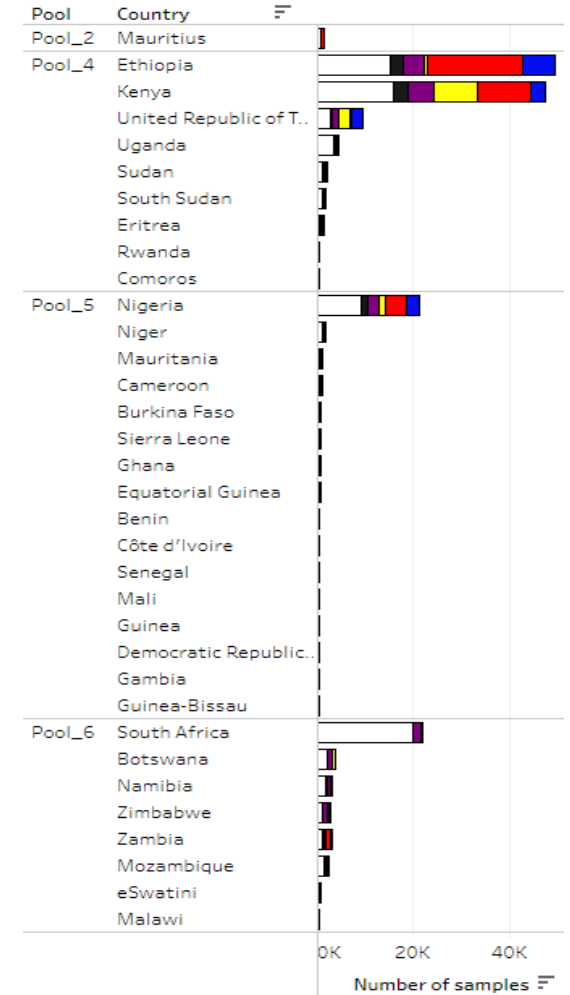
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2012 - 2022

<https://tableau.apps.fao.org/views/SurveillanceDashboards2/SerotypeDashboard?%3Aembed=y&%3AisGuestRedirectFromVizportal=y>

WOAH/FAO Laboratory Network Results





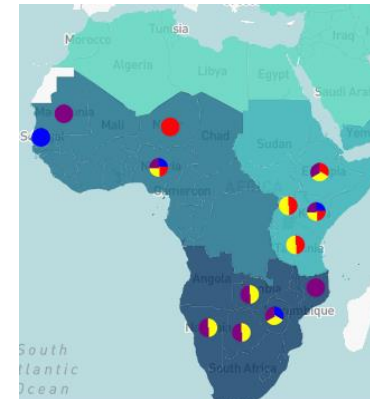
2012



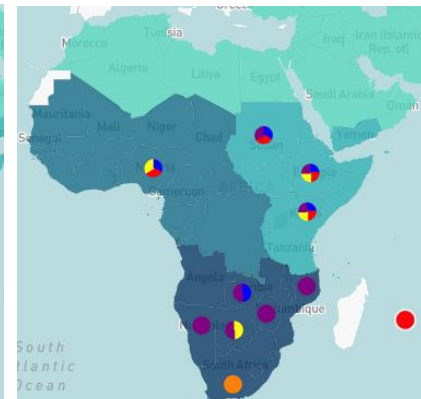
2013



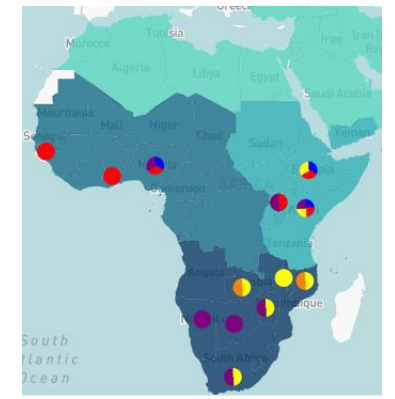
2014



2015



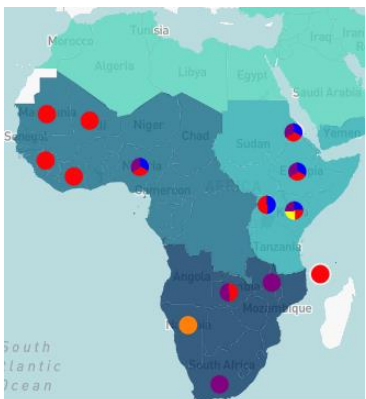
2016



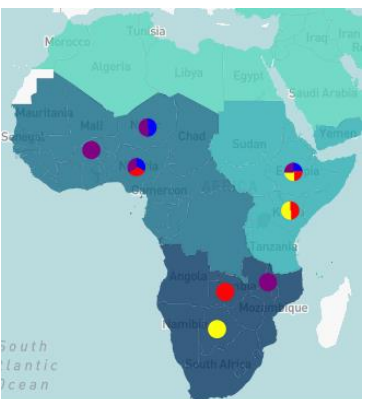
2017



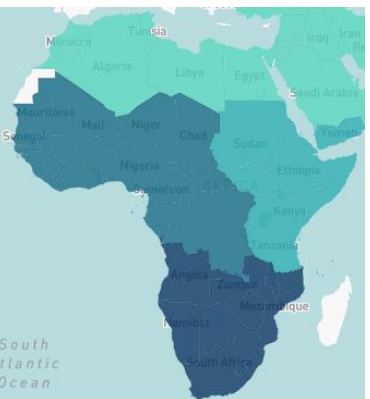
2018



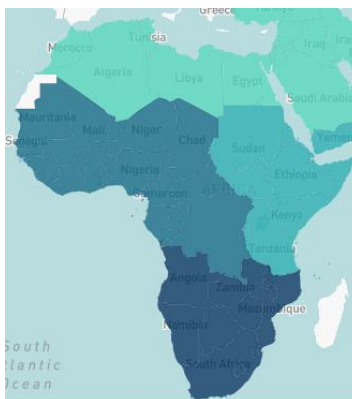
2019



2020



2021



2022



<https://tableau.apps.fao.org/views/SurveillanceDashboards2/SerotypeDashboard?%3Aembed=y&%3AisGuestRedirectFromVizportal=y>

Conclusion

- Some progress have been made regarding progression on FMD PCP, but not unified.
- Movement of FMDV serotype to new territories
- Strains within the O/EA-2 toposotype have drawn attention
- In recent years 10 SADC Member States reported FMD
- Distribution of lineages evolving with new patterns and antigenic variants impacts the selection of vaccine strains
- Spread from Pool 4 (supported by genomic data, from mainland East Africa) to cause outbreaks in central/southern Zambia and Namibia (Serotype O not detected since 2000, naïve livestock), more recently detected in Malawi, Mozambique

Conclusion

- FMDVs within four FMDV serotypes (O, A, SAT 1 and SAT2) circulate within two overlapping ecosystems in the region (northern and Southern)
- Northern: O/EA-3, A/AFRICA/G-IV and SAT 2/VII
- Two additional serotypes (O and A) have been reported in Angola and northern Zambia in 2019, considered as spill-overs from Pool 4.
- Distribution of lineages evolving with new patterns and antigenic variants impacts the selection of vaccine strains

Thank you

