



**TANZANIA VETERINARY LABORATORY AGENCY**

**CENTRAL VETERINARY LABORATORY**

# TANZANIA VETERINARY LABORATORY AGENCY

Topic

**CONTAGIOUS BOVINE PLEUROPNEUMONIA IN TANZANIA:  
FIELD AND DIAGNOSTIC ACTIVITIES**

**CBPP WORKING GROUP MEETING IN ZAMBIA  
26 -28 JULY, 2022**

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TVLA -CVL**

# Introduction

## □ Tanzania Veterinary Laboratory Agency (TVLA)

Is the network of public veterinary laboratories established as an Agency under the Ministry of Livestock and Fisheries in Tanzania.

The Agency has 13 laboratory centers located at different places in the country. These include:-

- Central Veterinary Laboratory (CVL)
- Centre for Infectious Diseases and Biotechnology (CIDB)
- Tanzania Vaccine Institute (TVI)
- Eight zonal veterinary laboratory centers (TVLA Centers)
- Two Vector and Vector Borne research centers

# TVLA mandates and functions

1. To conduct veterinary diagnostic services
2. To produce and distribute veterinary vaccines
3. To ensure safety of animal feeds and products of animal origin
4. To regulate veterinary pesticides and pharmaceuticals
5. To conduct research on animal diseases and vectors
6. To conduct and support training activities

# Field and diagnostic laboratory activities

- Contagious bovine pleuropneumonia (CBPP) in Tanzania
  - is the major transboundary cattle disease which cause many cattle deaths
  - is reported by veterinary officers from every region and district of Tanzania where there is livestock keeping

## In field

- From July 2021 to June, 2023, the ministry epidemiology unit received information captured by EMA-i (Event mobile application) from field officers reporting more than 5,000 cases of CBPP as diagnosed by clinical signs. These cases were not confirmed in the laboratory.
- The main control strategy is by vaccination using T1/44 strain

MAP showing distribution of CBPP disease as reported by veterinary field offices  
reflecting cases observed

# Field activities conducted by TVLA for surveillance of CBPP

- ❑ TVLA staff
  - go for active surveillance to collect samples for CBPP detection or sometimes are collect by farmers to collect samples for diagnosis of the disease
  - visit livestock keepers to create awareness on importance of testing animals against diseases before treating and protecting cattle against different diseases through vaccination
- ❑ For the period starting July 2022 up to June 2023, CVL collected 846 sera samples from Dar es Salaam and Coastal samples for testing of CBPP

# Some pictures showing how we work in the field: Picture below showing staff collecting samples from cattle





# Staff at one cattle market educating farmers on importance of vaccination



# Conducting vaccination in farms Dar es Salaam and Coast region



# Laboratory testing

- CVL is the only laboratory at TVLA which conducts testing of CBPP using competitive ELISA test method.
- **So, out of 846 samples collected for testing from Dar es Salaam and Coast regions, 262 samples equal to 30.9 % were positive.**
- Currently, CVL is not doing regular culture of Mycoplasma but we anticipate to start it soon. But we do when doing external quality control of T1/44 vaccine produced Tanzania Vaccine Institute.

# CVL Bacteriology laboratory



CVL



Bacteriology lab  
wing

## Staff and students working in the lab



## Some equipment in the laboratory



# Vitek Ms (Maldi-tof) And Vitek 2 Compact equipment



# Opportunities and appreciation

- Our staff Dr. Emile is undertaking her masters in CBPP through ERFAN support, thanks for the network and ERFAN sponsors for supporting this masters. I trust she will be able to complete here studies despite the challenges she has faced.
- Through the Fleming fund (Supporting AMR activities in Tanzania) our laboratory was renovated and retooled with automated machine, the Vitek Maldi-tof for identification of bacterial pathogens and Vitek 2 compact for doing Antimicrobial susceptibility Testing. So it is an opportunity for the network to collaborate and utilize these equipment which are at our disposal.
- Presently in Tanzania we continue with awareness creation and farmers are understanding and slowly accepting to test animals for CBPP
- We promote and continue vaccination campaigns in efforts to control CBPP



# Challenges

- We have been using competitive ELISA to diagnose CBPP and currently we have worn many farmers who accept to test for the disease but very unfortunately that IDEXX which supplies us with the kit has run out of stock
- I am putting a request to the ERFAN network to help us capacitate our laboratory to test CBPP using Complement Fixation Test (CFT).
- In order to improve surveillance in Tanzania, it seems important to increase public awareness and doing active surveillance sampling which is expensive

End of presentation

Thank you for listening