World Organisation for Animal Health

26th Conference of the Regional Commission for Africa (RC26)

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Control and eradication of CBPP in Africa: Challenges and Strategies for a CBPP Free Africa

26th Conference of the Regional Commission for Africa

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Outline

- Introduction to CBPP and Status in Africa
- CBPP Control methods
- Challenges to a CBPP-free Africa
- Priority areas of focus towards a CBPP-free Africa
- Conclusion

Contagious Bovine Pleuropneumonia (CBPP)

- Contagious bovine pleuropneumonia, CBPP is caused by the bacterium *Mycoplasma mycoides* subsp. *mycoides (Mmm*)

- CBPP is a WOAH listed disease with procedure for the official recognition of animal health status and endorsement of official diseases control programmes by WOAH

- Clinical signs include fever, coughing, respiratory distress and anorexia with unilateral lung lesions and pleural fluid -acute, subacute or chronic disease

- CBPP is transmitted by droplets in close contact between infected and susceptible animals

- Can cause up to 80 % mortality in naïve herd and has varying incubation periods

Status of CBPP in Africa

- Endemic in 22 countries, suspected in several others. 4 have WOAH official recognition as CBPP free, and 2 have endorsed CBPP control programs
- Most Members do not have WOAH offically recognised free status.
- CBPP is more common in pastoralist farming systems with sporadic episodes when sick animals encounter those from mixed farming systems.
- Climate change and more droughts are causing more movement and increased incidence
- The true cost of CBPP (economic, socio-cultural, health) has been elusive to document as very few studies are conducted -2005 Estimates: 24M people at risk with 30-50% living below poverty line (Thomson G.R. Contagious Bovine Pleuropneumonia and Poverty: A Strategy for Addressing the Effects of the Disease in Sub-Saharan Africa. Research Report.)

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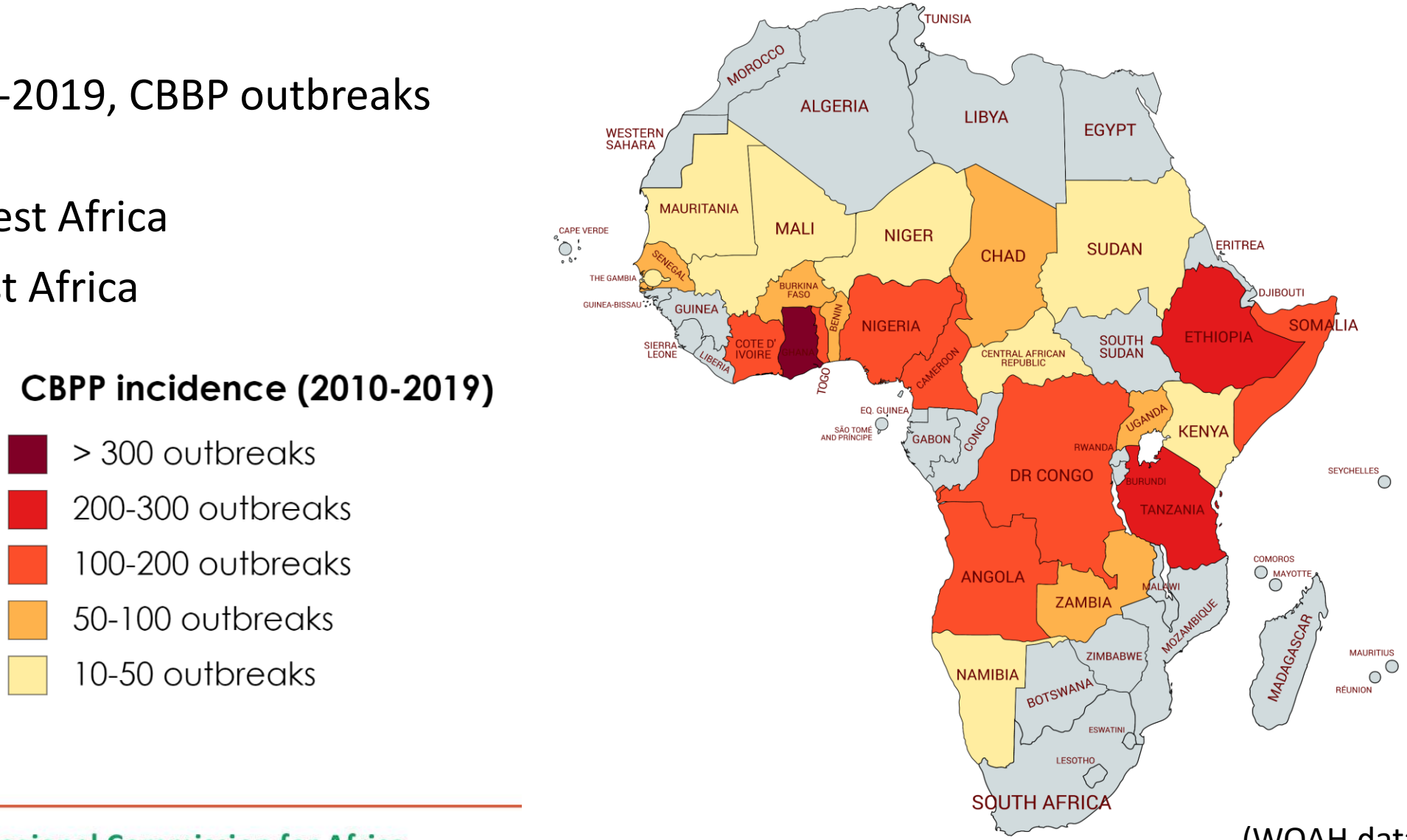
Africa: 10-yr Incidence of CBPP outbreaks

Between 2010-2019, CBBP outbreaks were located :

- 61.8 % in West Africa
- 24.9% in East Africa



(WOAH data)

Control of CBPP

	Control Method	Challenge
1	Stamping out whole infected herds	Feasible only if farmers are compensated and diagnosis is accurate
2	Test and slaughter –	Feasible only if farmers are compensated and diagnosis is accurate
3	Treatment with antimicrobials (Not recommended)	Animals develop chronic/latent CBPP and antimicrobial resistance; Feasible if diagnosis is accurate.
4	Vaccination (live attenuated T1/44 and T1sR)	Effective, but should be accompanied by diagnosis and quarantine Coverage should exceed 80% Vaccination should be bi-annual Post-vaccinal reactions remain a challenge
5	Quarantine	Should accompany all other control methods where appropriate

- CBPP control should be underpinned by effective surveillance programs
- WOAH is available to guide members on effective CBPP control programs
- Mass vaccination during the PACE program shown to be effective, especially in West Africa

Challenges to a CBPP-free Africa:

1. *Availability, Use and quality of CBPP Control Tools*

Control Tool	Challenges
Diagnostics (CFT, C-ELISA, PCR, Latex Agglutination)	➢ Tests not available on market ➢ Require technical expertise and QC ➢ No DIVA ➢ Excess dependence on clinical diagnosis
Therapeutics: Tylosin, Tetracycline, 2nd Generation macrolides like tulathromycin	➢ Not recommended but widely used ➢ No guidelines ➢ Unregulated counterfeits
Vaccines	➢ Manufacturers struggle to attain recommended tires of 10^8 CFU/ml ➢ Poor quality from production to storage and distribution-cold chain is a challenge ➢ Vaccination is often too late, and coverage is not consistent ➢ Only 17% of vaccines sold in Africa have PANVAC QC certification

Antibiotic Use in the Control of CBPP

Antibiotics used

Farm 1 _ Pen strep, Oxytetracycline (10%, 20%, & 30%), Dexamethasone
_Tylosine administered by the CDVS which stopped the deaths

Farm 2 _ Betamox, Oxytetracycline 10% and later 30%

Farm 3 _Penstrep, Oxytetracycline, Diaminazene Diaceturate, Metaphos (phosphorus and Vit B12 supplement), and Butaphos
_Dewormers

Farm 4 _ Oxytetracycline 10%, 5%

Farm 5 _ Oxytetracycline, Butalex, Multivitamin, Dexamethasone

Farm 6 _ pen strep, antihistamine, multivitamin and, Tylosin

- Self-treatment by farmers is common, at times the vets may inject the first dose and leave drugs with the farmers to continue with subsequent injections.

Challenges to CBPP to a CBPP-free Africa:

2.*Under-resourced State of Veterinary Services and Infrastructure*

- Members have greater focus on zoonotic diseases, production or non-zoonotic diseases are neglected
- Surveillance infrastructure is weak, and Members are reactive to CBPP outbreaks
- Diagnostic labs are not well equipped and there is no timely diagnosis of CBPP, especially from remote regions.
- There is limited capacity to restrict movement and where they exist, quarantine holding facilities are not well resourced
- The growth of road, electricity and information technology infrastructure in Africa has not been matched by progress in Veterinary Services and disease control.

Challenges to CBPP to a CBPP-free Africa:

3. *Challenges in Regional and Transboundary collaboration for CBPP control*

- Infectious diseases spread in ecosystems and Members acknowledge the need for transboundary approaches to CBPP control
- Coordination, collaboration and information sharing between Members is limited
- Policies for disease control are not harmonised between Members
- Movement of animals across borders is not well regulated or harmonised
- There is need for more coordinated security between neighbours that experience cattle rustling across borders
- Current AU-IBAR, WOAH and FAO strategies are available to help Members to harmonise transboundary cooperation for CBPP control.

Challenges to CBPP to a CBPP-free Africa:

4. *Governance, Legislation, and Policy Gaps*

- CBPP control is mostly under public mandate with some private sector involvement when invited
- The responsibility for disease control is often unclear between national level and devolved government levels (e.g. counties, districts or provinces)
- The role of the private sector is not well-defined.
- There are no clear policies for veterinary para-professionals and community animal health workers
- Absence of legislation and policy on animal identification and traceability or tracking
- Inability to enforce sanitary and husbandry practices that encourage CBPP like slaughtering animals at home, unregulated animal exchange, etc.

Challenges to CBPP to a CBPP-free Africa:

5. *Limited Financial Resources for CBPP control in Africa*

- CBPP is not highly prioritized by members because of its endemic stability, seasonal nature and competition for attention from other trade – sensitive diseases like FMD.
- Studies demonstrating socio-economic impact of CBPP are limited – opportunity for Members to be supported by the Global Burden of Animal Disease (GBAD)
- CBPP control programmes are largely funded by international development partners
- Dependence on international development partners is not sustainable as this assistance is declining
- Opportunities for private sector involvement in CBPP control should be considered

Priority Areas for Effective CBPP Control Towards a CBPP-free Africa:

Disease Epidemiology, Diagnostics and Quality vaccines

- Review and update CBPP risk maps
- Develop CBPP control plans for review and endorsement by WOAH:
- Strengthen abattoir and participatory community diagnosis and surveillance of CBPP
- Ensure availability and validation CBPP laboratory diagnostic tests
- Increase availability and coverage of quality CBPP vaccines
- Train veterinarians, veterinary paraprofessionals, community animal health workers and farmers on prudent use of antimicrobials

Priority Areas for Effective CBPP Control Towards a CBPP-free Africa:

Governance, Legislation and Policy Interventions

- Streamline governance of veterinary services
- Review and update institutional and regulatory frameworks to align with international standards for CBPP control
- Define the role of the private sector in CBPP control
- Develop and enforce policies for the use of antimicrobials in livestock
- Offer legal status of veterinary paraprofessionals and community animal health workers

Priority Areas for Effective CBPP Control Towards a CBPP-free Africa:

Harmonisation of Policies Across Members for Transboundary CBPP Control

- Harmonise regional strategies for CBPP control
- Harmonise and implement policies for CBPP control
- Establish sub regional CBPP control taskforces for focus on CBPP
- Development a framework for timely resource and information sharing
- Establish and implement WOAH Laboratory Twinning programmes

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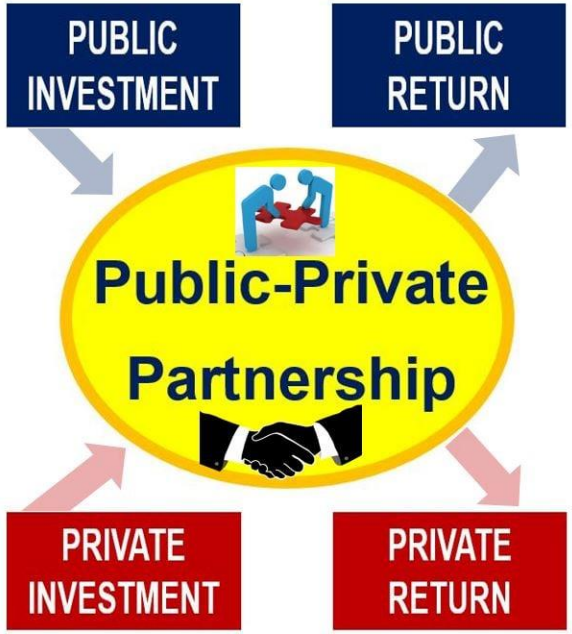
Priority Areas for Effective CBPP Control Towards a CBPP-free Africa:

Mobilising Resources Towards a CBPP-free Africa

- **Raise the profile of CBPP:** Members should generate, document and evidence for the importance of CBPP to food security, social, cultural, economic and livelihoods of livestock keepers in Africa
- **Enhance local and international communication on the cost of CBPP:** simplified messages and statistics demonstrating the benefits of controlling CBPP.
- **Prioritise CBPP in national budgets**: Members should consider dedicating a specific proportion of the Veterinary Services budget for specific CBPP activities.
- **Public-Private Partnerships**: Identify and support private sector involvement in CBPP control



Conclusion

- Progress to control CBPP seems to be stagnating for most Members
- Climate change is causing an increase in occurrence of livestock diseases including CBPP
- CBPP can be controlled and even eradicated if given sufficient attention – with progressive control programmes as most feasible for Members
- Successful CBPP control requires implementation of control programmes using available tools, strengthening veterinary services, enacting policies that are feasible and sub-regional and regional transboundary collaboration
- Members should leverage current technical and collaboration strategies from AU-PANVAC (LiDESA) and FAO-WOAH-AU-IBAR (CBPP GF-TADS) and Regional Economic Communities to make progress towards a CBPP-free Africa

A CBPP-free Africa is possible!!

Thank you!

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