



CBPP VACCINE: ESTIMATION COVERAGE & CERTIFIED DOSES (2018-2022)

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Outline

- ❖ CBPP Vaccines Received at AU-PANVAC
- ❖ Laboratories Producing CBPP Vaccine in Africa
- ❖ CBPP Vaccines Received for Certification at AU-PANVAC
- ❖ Estimation of Certified CBPP Vaccines Doses
- ❖ Pass rate for quality control tests on the CBPP vaccine and analysis of the causes of test failure
- ❖ Estimated CBPP Vaccine Coverage
- ❖ Conclusion



Major Veterinary Vaccines Received for QC

(2018-2022)

PPR
29%

PPR/SGP
2%

RABIES
2%

SGP
3%

AIB
2%

ANTHRAX
5%

BRUCELLOSIS
2%

BL
6%

CBPP
13.43%

2 strains:
- T1/44
- T1sr

CCPP
3%

ND
10%

LSD
3%

IBD
4%

HS
11%



CBPP Vaccines Batches Received for QC

Year	Total No of All Batches of Vaccines Received for QC	No of Batches of CBPP Vaccine Received	Proportion
2018	303	48	15.8%
2019	385	53	13.8%
2020	182*	28	15.4%
2021	221*	16	7.2%
2022	331	49	14.8%
Total	1422	194	13.6%

* The number of batches received significantly reduced in 2020 & 2021 due to COVID



Laboratories Producing CBPP vaccine in Africa



1. Northern Africa

- MOROCCO (MCI)

2. Western & Central Africa

- CAMEROUN (LANAVET)
- MALI (LCV)
- NIGERIA (NVRI)
- NIGER (LABOCEL)
- SENEGAL (ISRA-Production)

3. Eastern Africa

- ETHIOPIA (NVI)
- KENYA (KEVEVAPI)
- TANZANIA (TVI, HESTER)

4. Southern Africa

- BOTSWANA (BVI)

NB: JOVAC (Jordan) from Outside of Africa



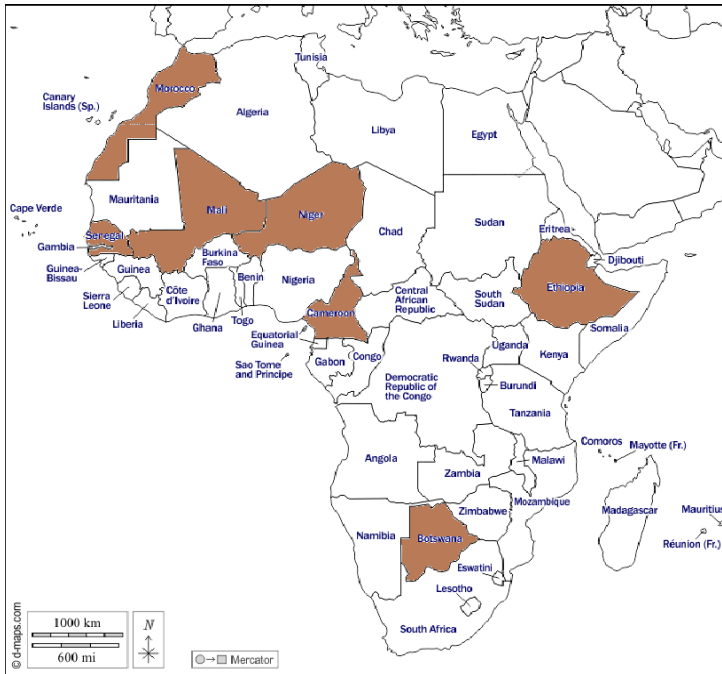
Certified CBPP vaccines from African

CONTRY/LABORATORY	2018	2019	2020	2021	2022
BOTSWANA (BVI)	6,896,600	4,300,000	-	-	-
KENYA (KEVEVAPI)	-	1,206,000	-	-	-
ETHIOPIA (NVI)	33,750,000	15,000,000	16,250,000	3,750,000	20,000,000
TANZANIA (HESTER)	-	-	-	-	2,000,000
TANZANIA (TVI)		900,000		-	-
CAMEROUN (LANAVET)	2,265,600	1,907,150	2,711,600	1,174,300	2,985,100
NIGERIA (NVRI)	-	-	-	-	-
NIGER (LABOCEL)	866,800	-	-	420,000	-
MALI (LCV)	2,385,300	3,010,050	1,519,800	2,980,000	-
SENEGAL (ISRA)	720,000	960,000	840,000	-	1,440,000
MOROCCO (MCI)	2,250,000	8,820,000	-	-	-
Total	49,134,300	36,103,200	21,321,400	8,324,300	26,425,100



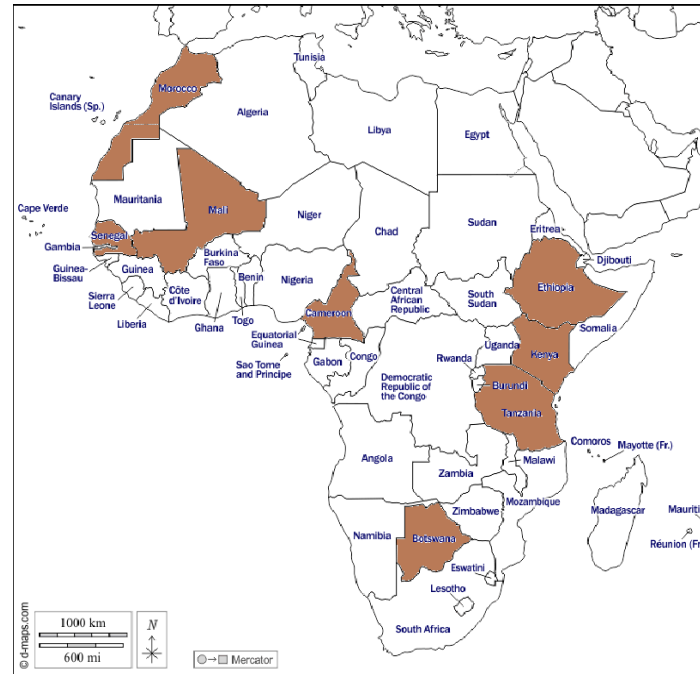
Laboratories Submitting CBPP Vaccine for QC

❖ 2018 (7)



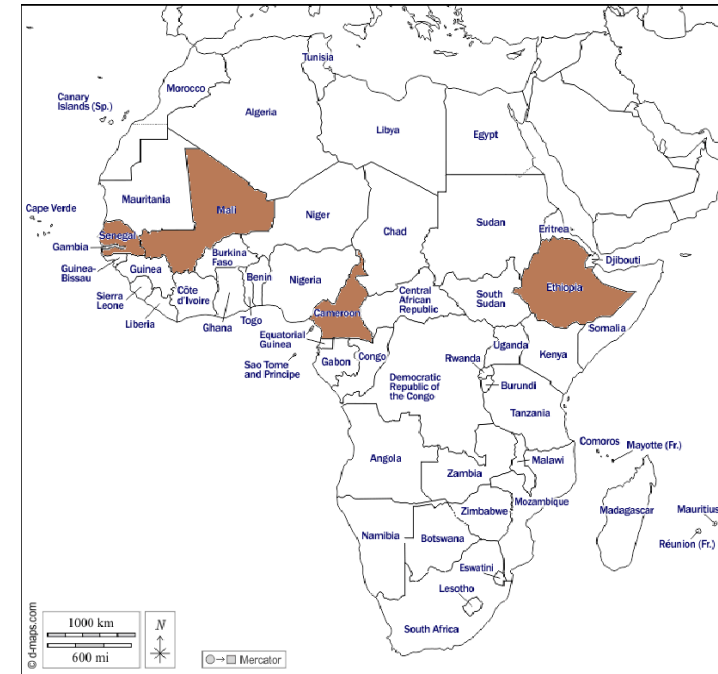
Botswana (BVI) - 6
Niger (LABOCEL) - 2
Ethiopia (NVI) - 14
Cameroon (LANAVET) - 2
Mali (LCV) - 2
Senegal (ISRA) - 6
Morocco (MCI) - 3

❖ 2019 (8)



Morocco (MCI) - 12
Tanzania (TVI) - 3
Botswana (BVI) - 2
Kenya (KEVEVAPI) - 1
Mali (LCV) - 3
Camer. (LANAVET) - 4
Ethiopia (NVI) - 6
Senegal (ISRA) - 8

❖ 2020 (4)

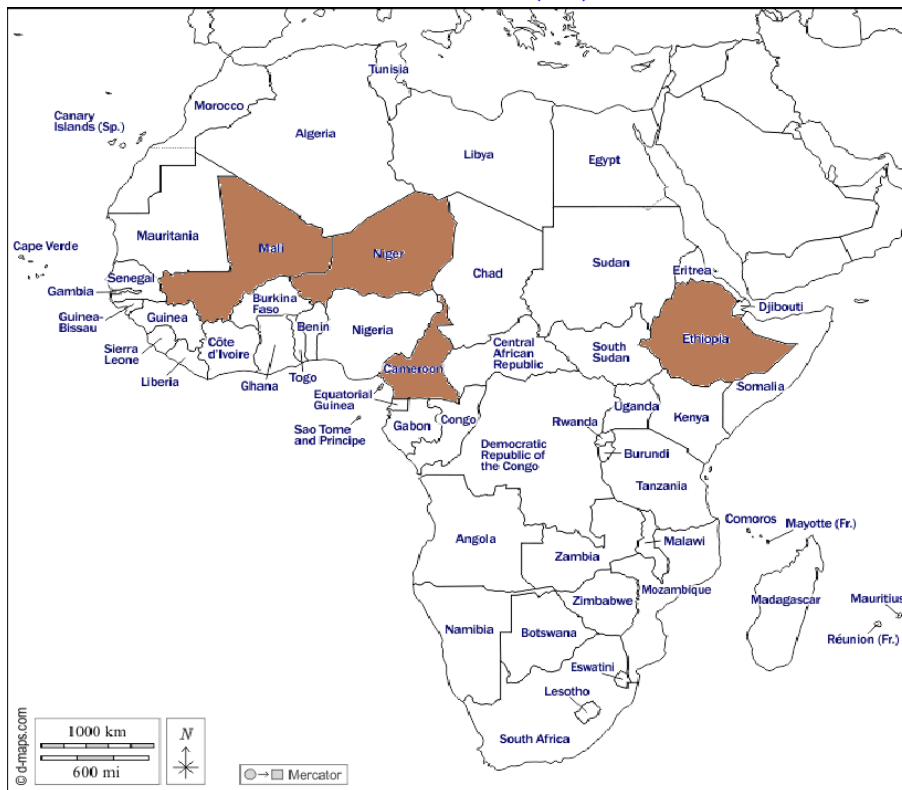


Ethiopia (NVI) - 7
Camer. (LANAVET) - 4
Senegal (ISRA) - 7
Mali (LCV) - 1



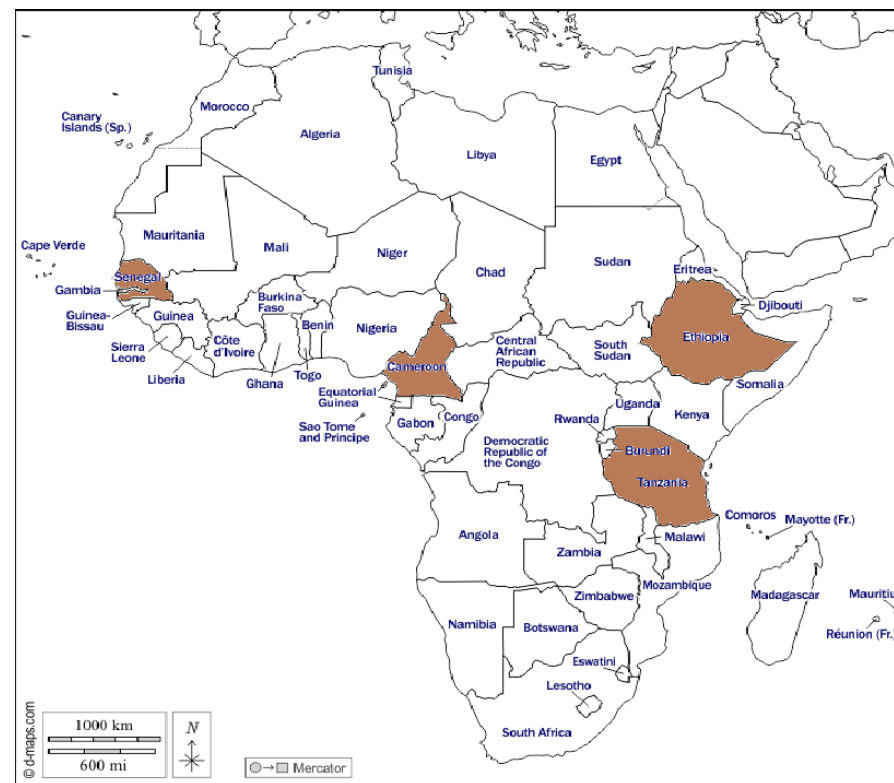
Laboratories Submitting CBPP Vaccine for QC.

❖ 2021 (4)



Ethiopia (NVI) - 2
Niger (LABOCEL) - 1
Mali (LCV) - 2
Camer. (LANAVET) - 1

❖ 2022 (4)



Senegal (ISRA) - 12
Ethiopia (NVI) - 8
Tanzania (HESTER) - 2
Camer. (LANAVET) - 2



CBPP VACCINES CERTIFIED FROM OUTSIDE AFRICA

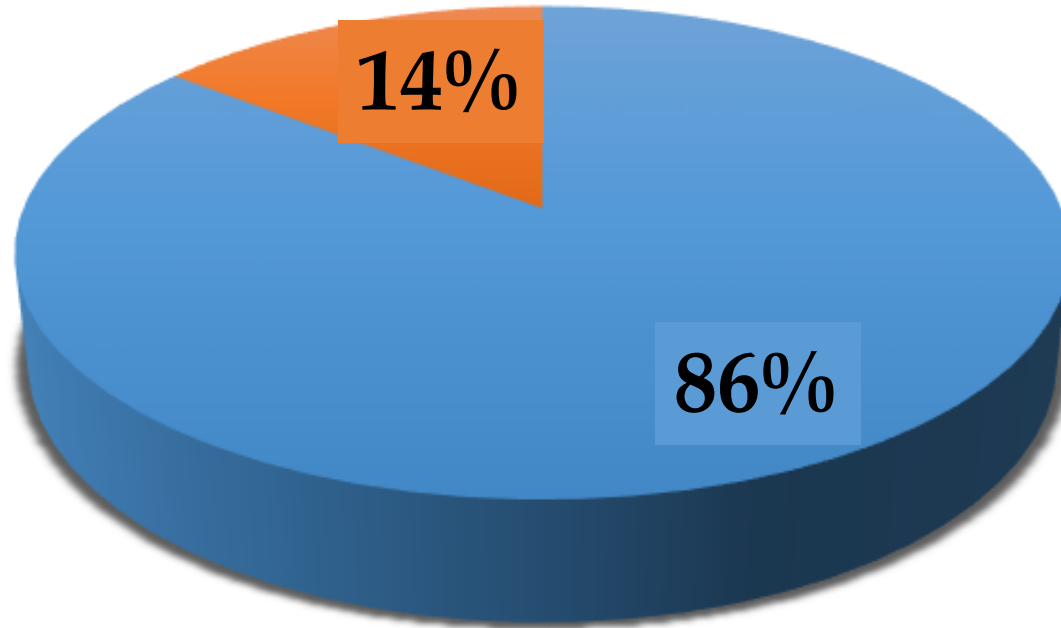
No of doses certified from outside Africa (JOVAC, JORDAN)

	2018	2019	2020	2021	2022
Batches	-	7	7	5	5
Doses	-	100,000,000	40,500,000	45,000,000	21,000,000



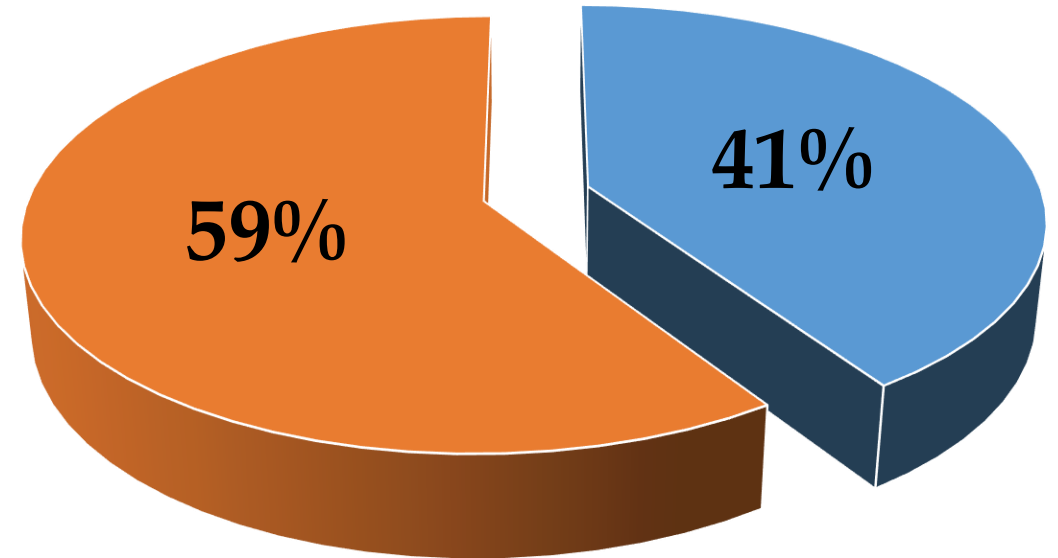
CBPP Vaccine Batches & Doses – Origin

2018-2022: Number of batches



■ African Producers ■ Non-African Producers

Number of doses



■ African Producers ■ Non-African Producers

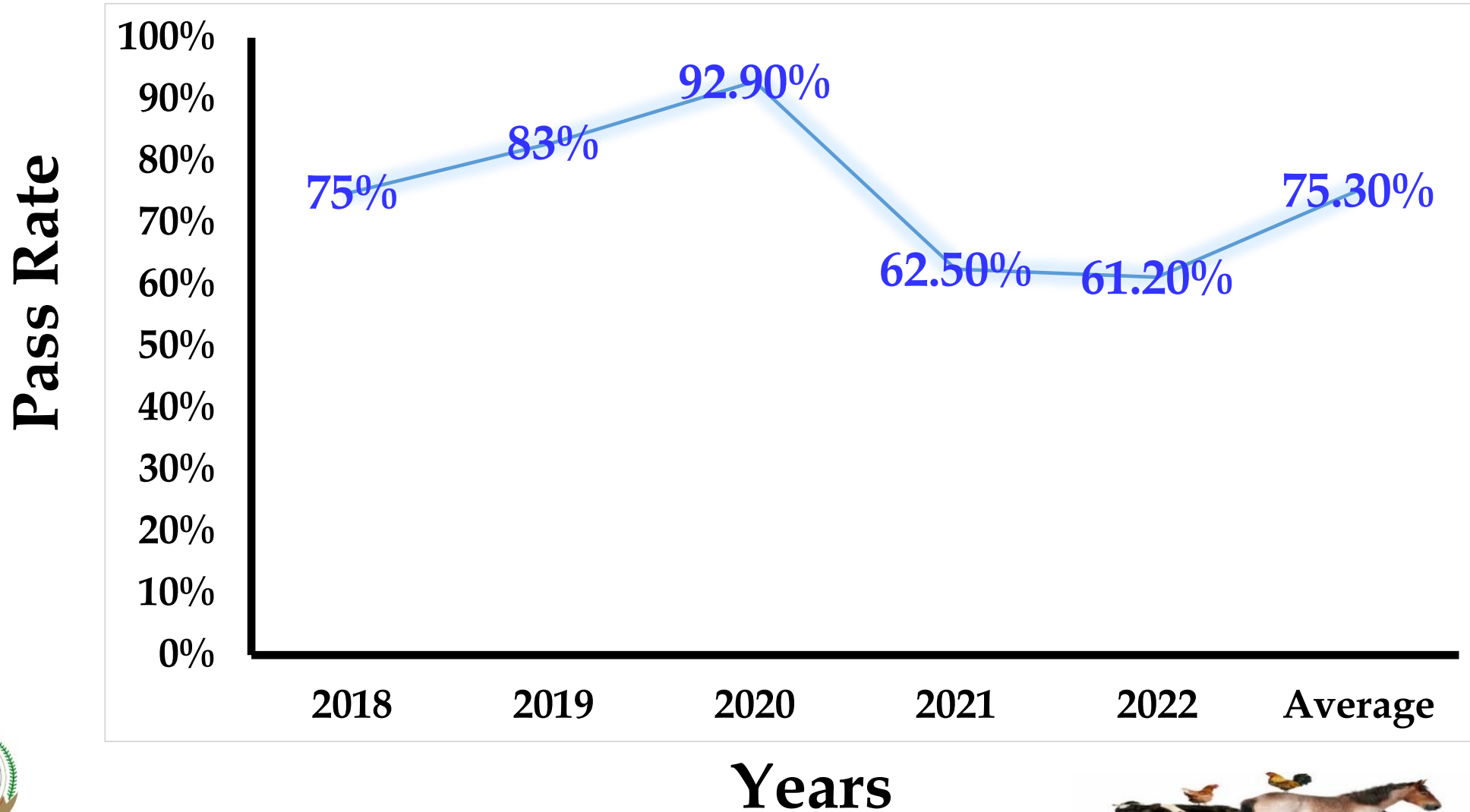


Proportion of CBPP Vaccine T1/44 & T1sr Certified

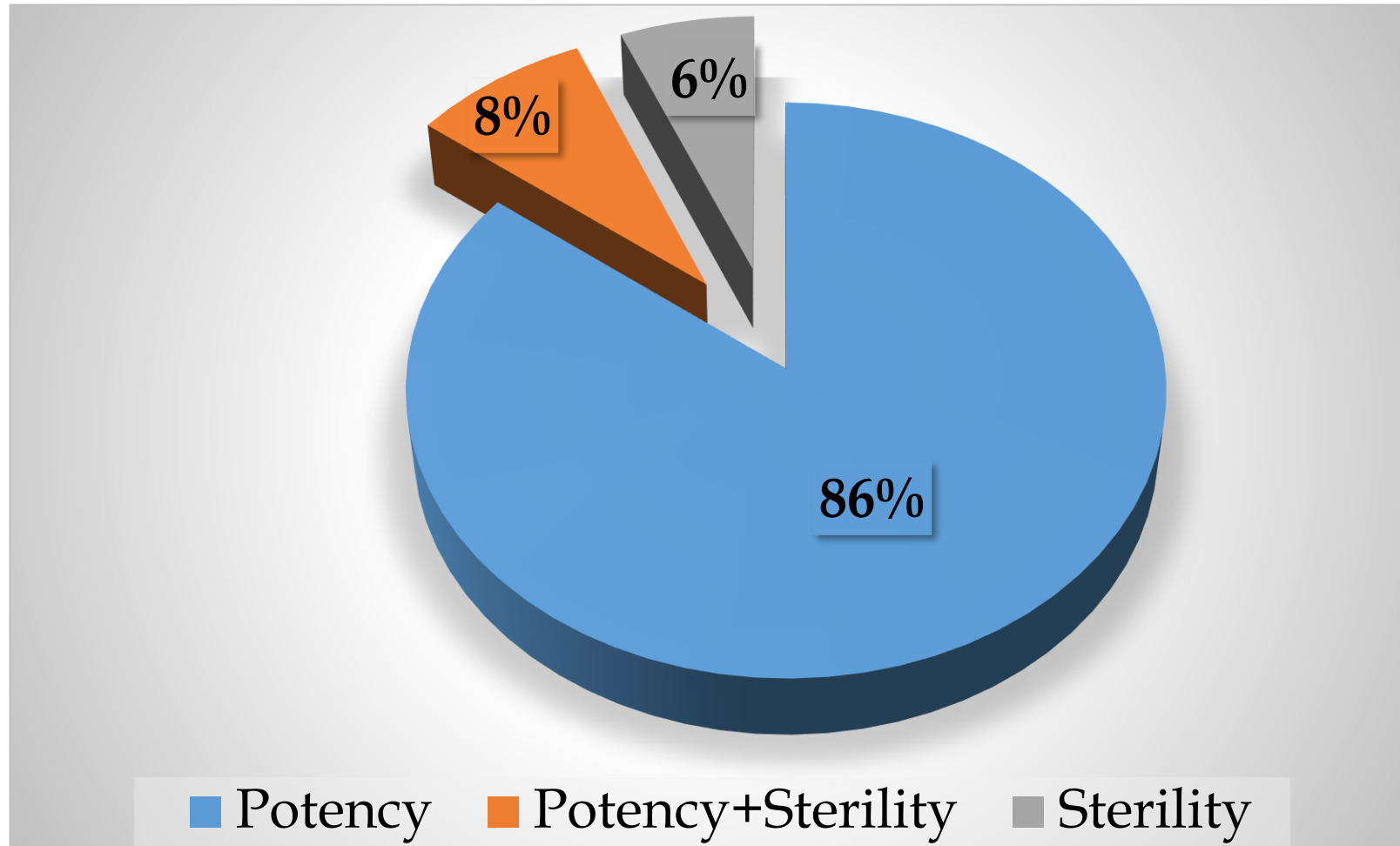
Vaccine Strain	2018	2019	2020	2021	2022
T1/44 (Batches)	28 (82.4%)	38 (84.4%)	24 (92.3%)	6 (55.5%)	25 (86.2%)
T1/44 (Doses)	37,781,400 (76.9%)	112,129,650 (82.4%)	60,182,050 (97.3%)	45,420,000 (85.2%)	39,440,000 (83.2%)
T1sr (Batches)	6 (17.6%)	7 (15.6%)	2 (7.7%)	5 (45.5%)	4 (13.8%)
T1sr (Doses)	11,352,900 (23.1%)	23,973,550 (17.6%)	1,639,350 (2.7%)	7,904,300 (14.8%)	7,985,100 (16.8%)
Total (Doses)	49,134,300	136,103,200	61,821,400	53,324,300	47,425,100
Total (Batches)	34	45	26	11	29



CBPP VACCINE PASS RATE

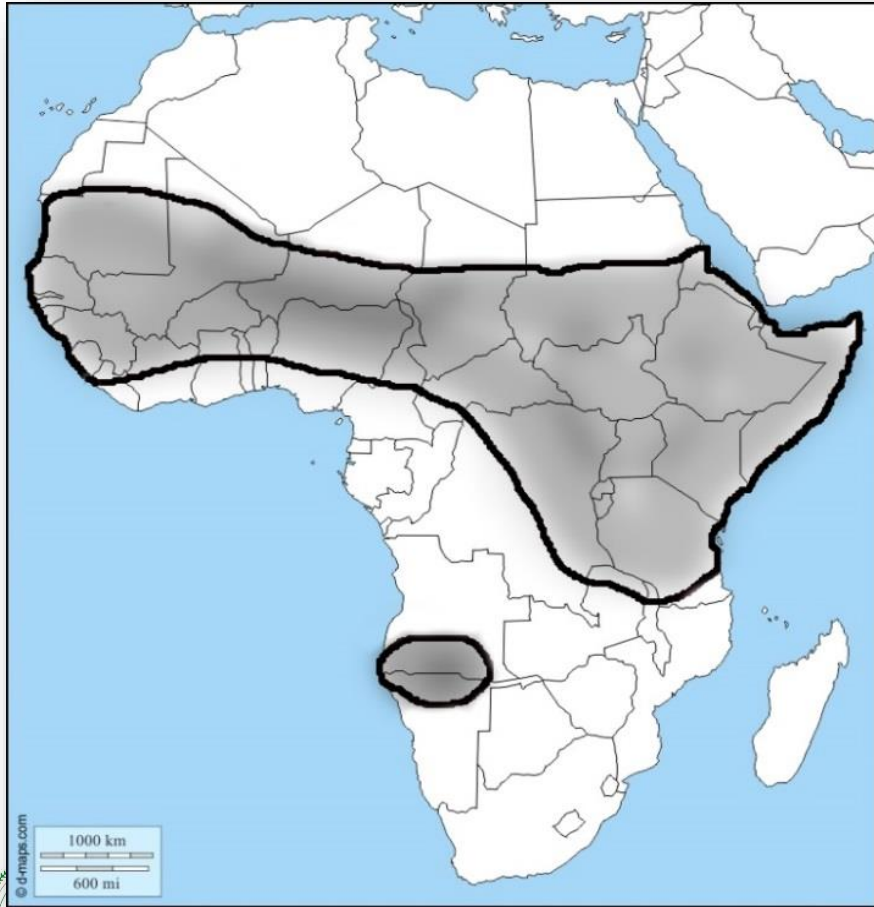


Reasons of CBPP Vaccine Failure



ESTIMATED CBPP VACCINE COVERAGE

❖ **Cattle Population in Africa at risk of CBPP infection: 256,420,000 heads**



❖ **Minimum of 200 million doses/year needed for vaccination of 80% of cattle population at CBPP risk:**

❖ **Gaps Certified and Required Vaccines :**

- 2018: 49,134,300 (24.6%)
- 2019: 136,103,200 (68.1%)
- 2020: 61,821,400 (30.9%)
- 2021: 53,324,300 (26.7%)
- 2022: 47,425,100 (23.7%)



Conclusion

- ❑ CBPP vaccine pass rate is around 75% is below the pass of rate of total vaccine batches tested (90%)
 - Main causes of failure – 86.4% is due to potency
 - Therefore, Laboratories need assistance to enhance vaccine quality
- ❑ There's a gap between certified vaccines and the required doses
- ❑ There's a need to increase the CBPP vaccine production capacity in most labs
- ❑ T1/44 represent the main vaccine strain produced



Synergies and Partnerships



AU-MSD

**AU-MS Vaccine
Producing Labs**

**Regional Animal
Health Centre in
the RECs**



US-DTRA



**BILL & MELINDA
GATES foundation**





Thank you

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