

Foot-and-mouth disease vaccines and vaccination status in Tanzania

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**REPORTED AND CONFIRMED
FMDV
EVENTS IN 2009-2010**

Zone	Region	No specimen		Specimen collected		Total reports 09-10
		2009	2010	2009	2010	
C	Singida	2	1	0	0	3
E	DSM	1	0	0	0	1
E	Morog	1	0	0	0	1
L	Kagera	3	0	0	0	3
L	Mara	4	0	0	0	4
L	Mwanza	1	5	0	1	7
L	Shyng	0	1	0	0	1
N	Arusha	1	0	0	0	1
N	Kilmj	1	0	0	0	1
N	Tanga	4	3	0	0	7
SH	Iringa	3	19	1	0	23
SH	Mbeya	2	1	0	0	3
SH	Rukwa	1	16	0	0	17
SH	Ruvuma	1	0	0	0	1
W	Kigoma	1	6	0	0	7
W	Tabora	0	0	1	0	1
	TOTAL	26	52	2	1	81

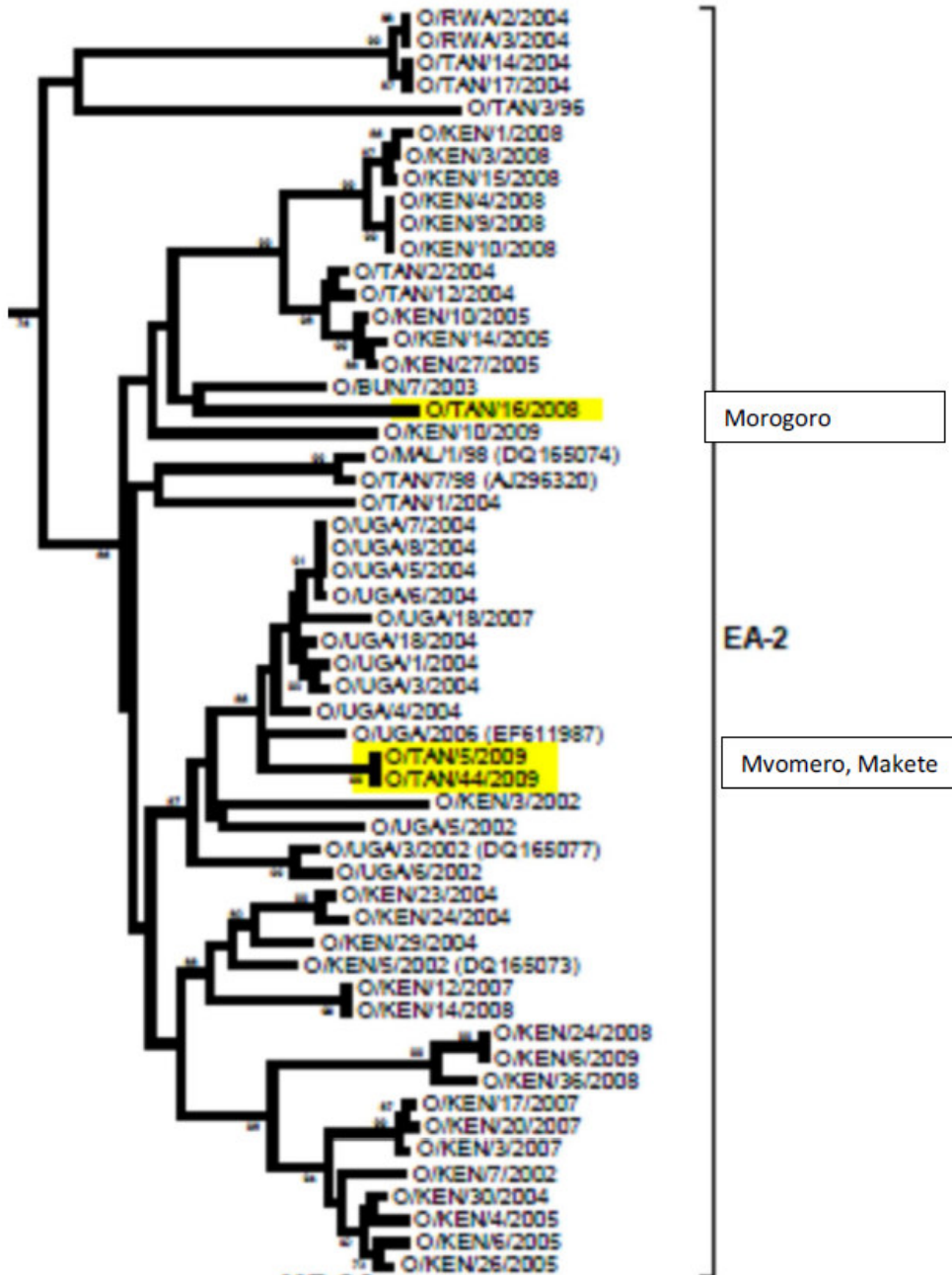
- 26 and 52 outbreaks were reported in 2009 and 2010, respectively
- only from 3 reported outbreaks samples were received
- Many – spontaneous submissions
- 69 tissue samples in 2009 and 75 tissue in 2010.
- 2009 serotypes A, O, and SAT 2
- 2010 only SAT 2 and – predominantly O.
- 2010 – specimens to WRLFMD for genetic and antigenic characterisation, type O topotype EA-2, type A topotype G-I and type SAT 2 topotype IV.
- screening 276 sera from unvaccinated cattle by LBPE for Ab vs serotypes A, O, SAT 1, SAT 2, and SAT 3. –
 - many multiple reactions).

Zone	District	Tissue pos	Total specimen	Results
E	Mkuranga	3	14	O
E	Kwala	0	2	Neg
E	Ifakara	0	2	Neg
E	Ulanga	0	3	Neg
E	Bagamoyo	0	1	Neg
E	Ulanga	2	8	SAT 2
E	Rufiji	0	6	Neg
N	Ngorongoro		2	Too little NT
SH	Iringa Municipal	0	1	Neg
SH	Iringa Municipal	0	1	Neg
SH	Sumbawanga R	1	6	O
SH	Sumbawanga Mun	1	3	O
S	Newala and Nachingwea		2	Not found
S	Mtwara	0	1	Neg
L	Misungwi	0	4	Neg
L	Kagera	1	1	O
L	Misenyi	2	2	O
L	Muleba	2	2	O
L	Kahama	1	2	O
L	Sengerema	1	1	Neg
Zn		0	11	Neg
		14	75	

Zone	District	Tissue pos	Blood pos	Total coll,	Final results
C	Mpwapwa	3 of 9	0 of 8	17	Waiting
C	Dodoma	2 of 3		3	A & Waiting
E	Morogoro	1 of 1		1	Waiting
E	Morogoro R	0 of 3		3	NEG
E	Morogoro	1 of 1		1	O
E	Morogoro	1 of 1		1	A
E	Bagamoyo	1 of 2		2	A
E	Kinondoni	2 of 2		2	Waiting
E	Bagamoyo	1 of 1		1	A
SH	Iringa VIC				O
SH	Iringa R and Njombe	2 of 3		3	Waiting
SH	Njombe	0 of 2		2	NEG
SH	Iringa	2 of 2		2	A
SH	Njombe	0 of 1		1	NEG
SH	Njombe	0 of 1		1	NEG
SH	Njombe	0 of 1		1	NEG
SH	Njombe M	2 of 2		2	Waiting
SH	Mbarali	0	3 of 10	10	Waiting
SH	Iringa M.	0	10 of 10	10	A & Waiting
SH	Iringa M.	0	0 of 5	5	A
SH	VIC Iringa	0			A
SH	Iringa R.	1 of 1		1	A
SH	Makete	1 of 1		1	O
SH	Makete	1 of 1		1	SAT 2
SH	Iringa	0 of 1		1	NEG
W	Tabora M.	5 of 10		10	Waiting

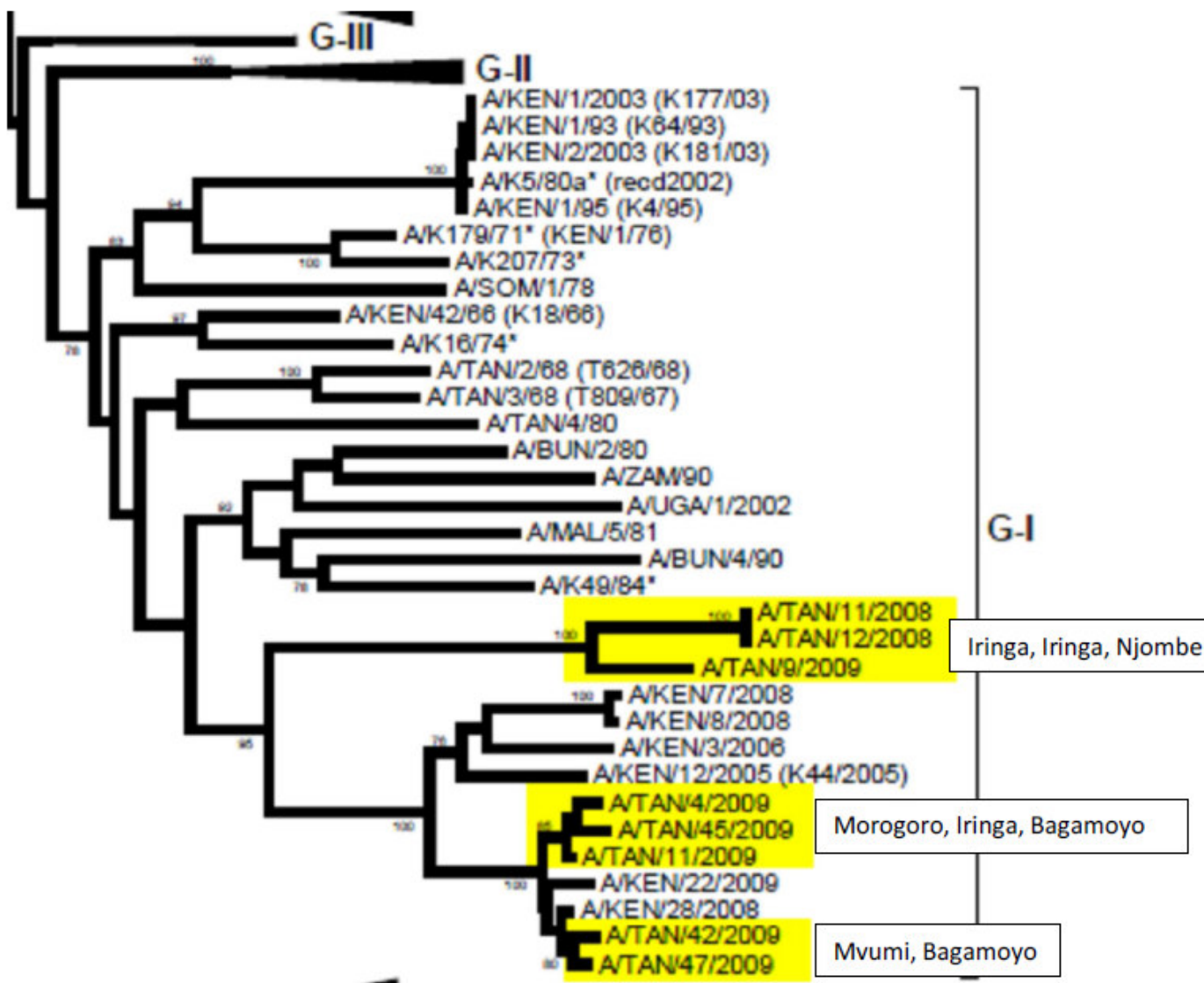
Molecular typing and vaccine matching

Serotype O



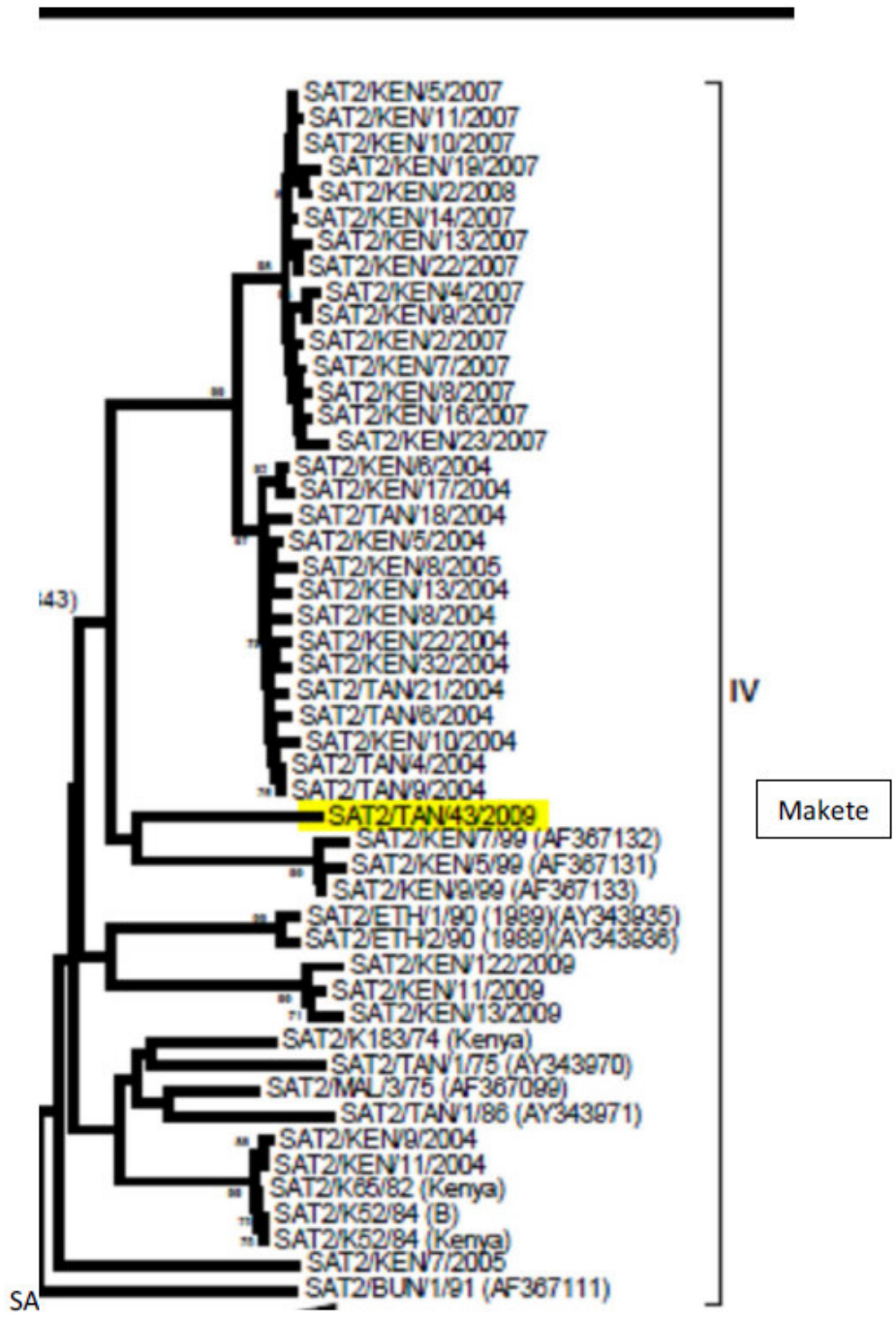
Test	VNT				LPBE	
	Bfs	Ind R2/75	Manisa	Taw98	K77/78	Manisa
Vaccine						
OTan5/2009	0.22	>1.0	0.39	0.31	0.50	0.53
Protection	unlikely	Likely	Likely	Likely	Likely	Likely

Serotype A

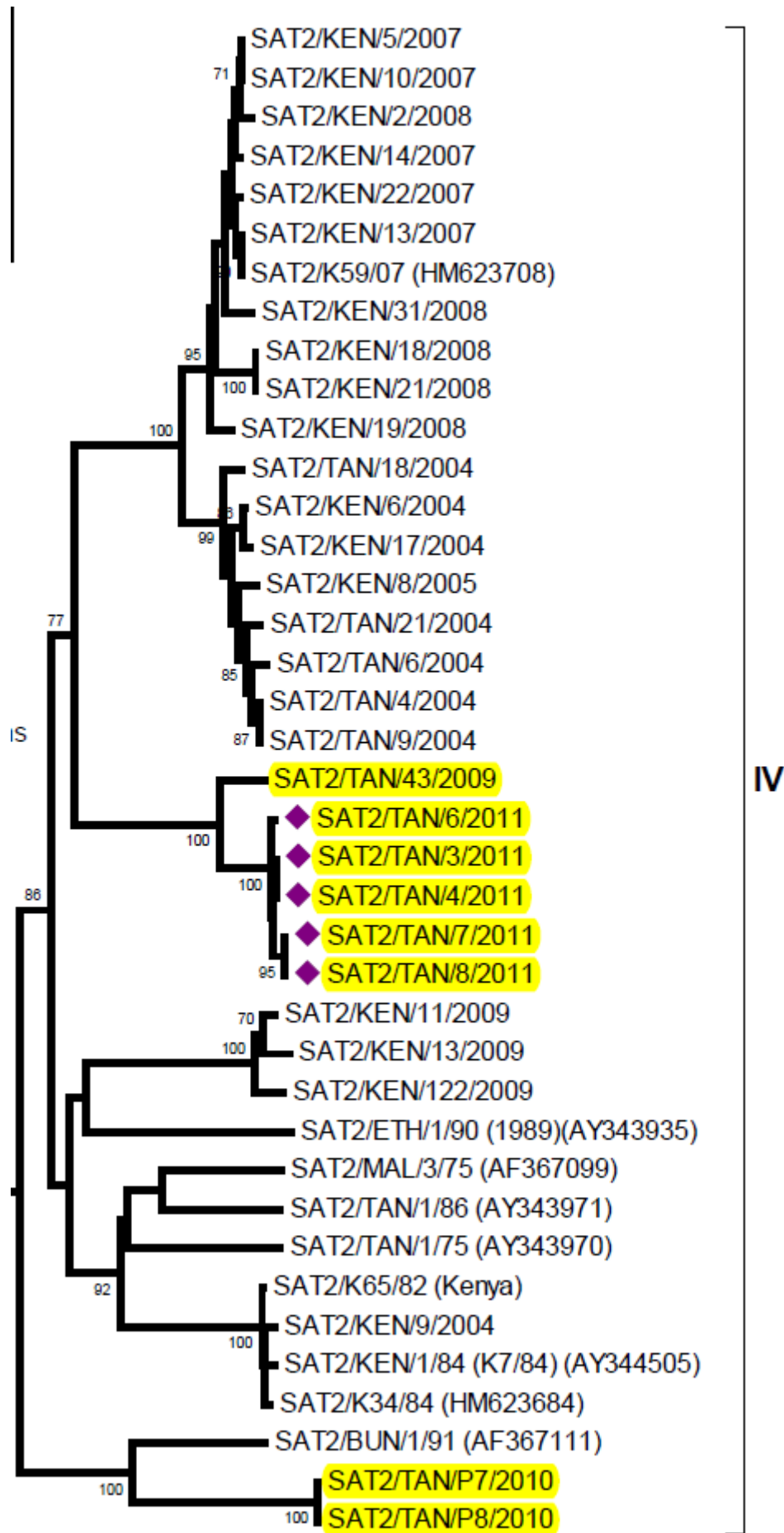


Test	VNT					LPBE		
	Eritrea	Ind 17/82	A22 Irg	Sau41/9 1	Tur06	A22Irg 24/64	Eritrea	Ken35/80
Vaccine								
A Tan 11/09	0.37	0.20	0.14	0.19	0.10	DNT	0.13	0.10
	Likely	unlikely	unlikely	unlikely	unlikely			
A Tan 42/09	0.52	0.06	0.33	0.38	0.32	0.25	DNT	DNT
	Likely	unlikely	Likely	Likely	Likely	Vaccinate> 1		

SAT 2



Test	VNT		ELISA					
	Eri	Zim	Bot3/77	Eri	Zim11/89	K65/82	Zam3/81	Zim 7/83
Vaccine								
Tan 43/2009	0.38	0.19	DNT	DNT	DNT	0.33	DNT	DNT
	Likely	unlikely				Vaccinate>1		



Which vaccine was used in
2009-2011?

Which producer?

- no specific records with respect
 - amount of vaccine used,
 - specifications of the vaccines used.
- Information is crucial especially after
 - 2010 vaccine matching
 - FMD PCP

Current FMDV laboratory capacity

- CVL

- Ag detection ELISA
- Ab detection LPBE
- RT-PCR/rt RT-PCR

- SUA

- RT-PCR/rt RT-PCR
- Sequencing of VPI

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 - Bringing the participants together to share information
 - Your listening