



Foot-and-Mouth Disease situation

Food and Agriculture Organization of the United Nations

Monthly Report

April 2013

INFORMATION SOURCES USED:

Databases:

- *OIE WAHID World Animal Health Information Database*
- *FAO World Reference Laboratory for FMD (WRLFMD)*

Other sources:

- *FAO/EuFMD supported FMD networks*
- *FAO/EuFMD projects and field officers*

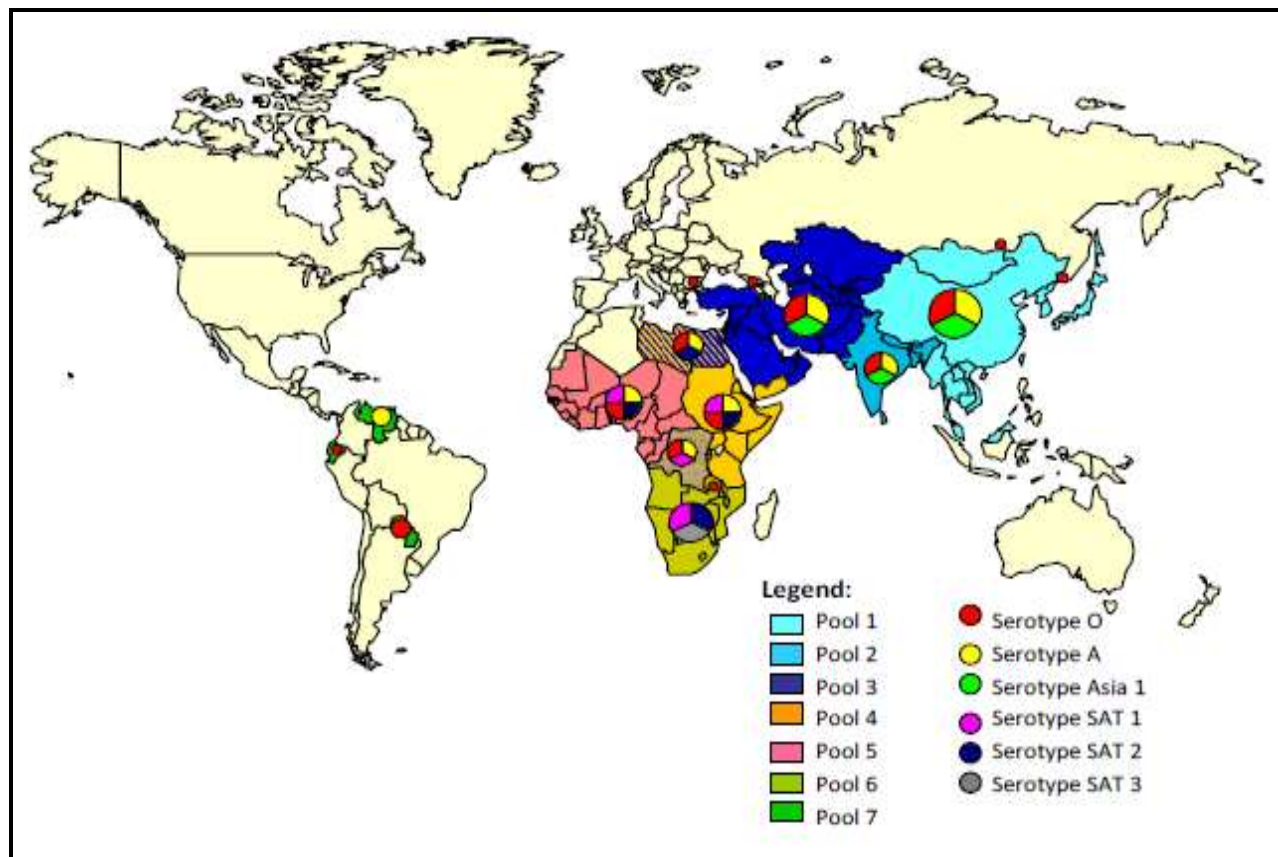
The sources for information are referenced by using superscripts.
The key to the superscripts is on the last page

Please, note that the use of information and boundaries of territories should not be considered to be the view of the U.N. Please, always refer to the OIE for official information on reported outbreaks and country status.

I. GENERAL OVERVIEW

Foot-and-mouth disease (FMD) distribution by Serotype and the seven virus pools, 2010-2013 (Map 1)

Pools represent independently circulating and evolving FMDV genotypes; within the pools, cycles of emergence and spread occur that usually affect multiple countries in the region. In the absence of specific reports, it should be assumed that the serotypes indicated below are continuously circulating in parts of the pool area and would be detected if sufficient surveillance was in place (Table 1).



Map 1: Foot-and-mouth disease virus pools distribution, 2010-2013

Table 1: List of countries representing each virus pool

POOL	REGION/COUNTRIES	SEROTYPES
1	<u>CENTRAL/EAST ASIA</u> (Cambodia, China (People's Rep. of), China (Hong Kong, SAR), China (Taiwan Province), Japan, Korea (DPR), Korea (Rep. of), Laos PDR, Malaysia, Mongolia, Myanmar, Russian Federation, Thailand, Viet Nam)	O, A, Asia 1
	<u>SOUTH ASIA</u> Bangladesh, Bhutan, India, Nepal, Sri Lanka	
3	<u>WEST EURASIA & MIDDLE EAST</u> (Afghanistan, Armenia, Azerbaijan, Bahrain, Bulgaria, Egypt, Georgia, Iran, Iraq, Israel, Jordan, Kazakhstan, Kuwait, Kyrgyzstan, Lebanon, Libya, Oman, Pakistan, Palestine Autonomous Territories, Qatar, Saudi Arabia, Syrian Arab Republic, Tajikistan, Turkey, Turkmenistan, Uzbekistan)	O, A, Asia 1
4	<u>EASTERN AFRICA</u> (Burundi, Comoros, Congo D. R., Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Libya, Rwanda, Somalia, North Sudan, South Sudan, Tanzania, Uganda, Yemen)	O, A, SAT 1, SAT 2
5	<u>WEST/CENTRAL AFRICA</u> (Benin, Burkina Faso, Cameroon, Cape Verde, Central Afr. Rep., Chad, Congo D. R., Congo R., Cote d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea Biss., Guinea, Liberia, Mali, Mauritania, Niger, Nigeria, Sao Tome Principe, Senegal, Sierra Leone, Togo)	O, A, SAT 1, SAT 2
6	<u>SOUTHERN AFRICA</u> (Angola, Botswana, Congo D. R., Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe)	{O, A}* , SAT 1, SAT 2, SAT 3
7	<u>SOUTH AMERICA</u> (Ecuador, Paraguay, Venezuela)	O, A

* ONLY IN NORTH ZAMBIA AS OVERSPILL FROM POOL 4

Egypt and Libya are indicated as being in multiple pools, since they have evidence of FMDV originating from 2 or more pools in the recent past (4 years).

II. HEADLINE NEWS

POOL 1

Laos⁹ – 3 FMD outbreaks were reported in March 2013.

Viet Nam¹⁸ – Serotype A of foot and mouth disease virus has emerged in Viet Nam.

China¹ – Serotype A outbreaks were reported in Xinjiang and Tibet.

POOL 2

India¹⁸ – FMD suspicion was reported in Chandel district.

POOL 3

Iran² - 76 FMD outbreaks were diagnosed clinically.

United Arab Emirates⁵ – O/ME-SA/PanAsia-2^{ANT10} was confirmed in two samples collected in January 2013.

POOL 4

Tanzania⁵ – Serotyping at WRL confirmed that serotypes A, SAT 1 and SAT 2 were circulating in Tanzania.

Uganda¹⁹ – Several outbreaks throughout the country were reported.

POOL 5

Democratic Republic of the Congo¹⁴ – Many FMD outbreaks were reported throughout the country.

POOL 6

Botswana¹ – Outbreaks were reported within FMD control zones. Since strict control measures are in place, FMD free zones are not affected.

POOL 7

No new events have been reported for this reporting period.

COUNTER

***** 16 MONTHS SINCE LAST OUTBREAK IN SOUTH AMERICA HAS BEEN REPORTED**

***** 103 MONTHS SINCE LAST C SEROTYPE OUTBREAK HAS BEEN REPORTED**

III. DETAIL POOL ANALYSIS

P O O L 1

CENTRAL / EAST ASIA

Laos⁹ – 3 FMD outbreaks were reported in March 2013 (Map 2). Serotype O caused one of those outbreaks, while other two were not sampled.



Map 2: FMD outbreaks in Laos

Viet Nam¹⁸ – Serotype A of foot and mouth disease virus has emerged in the provinces of Ha Tinh and Thanh Hoa, in central Vietnam. Animals in Viet Nam are vaccinated against serotype O.

China¹ - Two outbreaks in **Xinjiang**, near the border with Kazakhstan, were reported (Maps 3 and 4). The outbreaks were caused by serotype A which had appeared the last time in 2010 in China. The disease was clinically manifested and affected two cattle farms. All animals were destroyed. The virus was confirmed by AgELISA, RT-PCR and virus isolation at Lanzhou Veterinary Research Institute.



Map 3: FMD outbreak in Hailipaiquke Village, Luopu, Hetian, XINJIANG



Map 4: FMD outbreak in Suokeman, Awati, Akesu, XINJIANG

Map of South and East Asia showing countries and territories. A red dot is located in Nepal. A legend in the bottom left corner indicates that a red dot with a cross symbol means 'Continuing (domestic)' and a yellow box means 'No information'.

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Table 2: Pool 1 FMD history 2010-2013

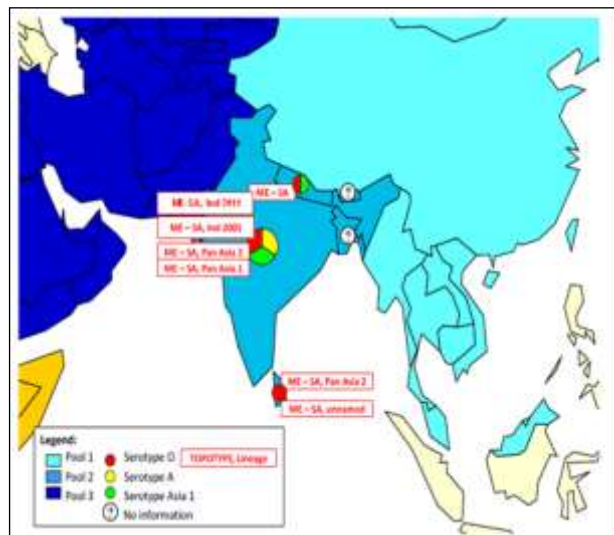
COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
CAMBODIA, 2011	2011, 2012 – NOT TYPED ¹	OCT 2012/NOT TYPED ¹	DISEASE PRESENT
CHINA (PEOPLE'S REP. OF), 2011, ½ 2012	2011, 2012, 2013 – A, O ^{1, 16}	APR 2013/A ¹	DISEASE PRESENT
CHINA (HONG KONG, SAR), 2011	2011 – O ^{1, 5} 2012 – O ³	NOV 2012/O ³	DISEASE PRESENT
CHINA (TAIWAN PROVINCE), NO OIE DATA	2011 – 2011 – O ⁵ 2012 – O ¹	NOV 2012/O ¹	UNKNOWN
JAPAN, 2011	2011, 2012 - NO REPORTED OUTBREAKS ¹	JULY 2010/O ^{1, 5}	FREE WITHOUT VACCINATION
KOREA (DPR), 2011	2011 – O ^{1, 5}	MARCH 2011/O ¹	½ 2011-PRESENT 2/22011 – NOT REPORTED
KOREA (REP. OF), 2011	2011 – O ^{1, 5}	APR 2011/O ¹	½ 2011-PRESENT 2/22011 – NOT REPORTED
LAOS PDR, NO SUBM. REPORTS	2011, 2012, 2013 - O ⁹	MARCH 2013/O ⁹	UNKNOWN
MALAYSIA, 2011, ½ 2012	2011 – O, A ^{1, 5} 2012 – O, A ^{1, 5} 2013 – NOT TYPED ⁹	JAN 2013/NOT TYPED ⁹	FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED
MONGOLIA, 2011	2012 - O ¹⁰	2012/O ¹⁰	½ 2011 – LIMITED ON ONE OR MORE ZONES, 2/22011 -NOT REPORTED
MYANMAR, 2011	2011 – O ¹	FEB2012/O ⁹	DISEASE PRESENT
RUSSIAN FEDERATION, 2011	2011 – O ¹ 2012 – O ¹ 2013 – A ¹	MAR 2013/A ¹	½ 2011 – NOT REPORTED, 2/22011 - DISEASE PRESENT
THAILAND, 2011, ½ 2012	2011 – O, A ^{1, 5} 2012 – O, A ^{1, 5}	OCT 2012/A, O ¹	DISEASE PRESENT
VIET NAM, 2011	2011 – O ^{1, 5} 2012 – A, O ⁵ 2013 – A ¹⁸	APR 2013/A ¹⁸	DISEASE PRESENT

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II POOL 2

SOUTH ASIA

India¹⁸ – FMD was suspected in cows and buffaloes in the villages of Chandel district.



Map 7: FMD distribution by serotypes 2010 – 2013

South Asia is known to be an FMD endemic area but very limited data on serotypes is available (Map 7).

The PD-FMD at Mukteswar (FMD Reference laboratory for South Asia) is active in this region and is requested to provide information on FMD circulation that will assist improved understanding of virus circulation.

FMD history in the past 2 years is given in Table 3.

Table 3: Pool 2 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BANGLADESH, 2011	2011 – O, A, Asia 1 ⁶	NOT AVAILABLE	½ 2011 DISEASE PRESENT, 2/2 2011 - LIMITED TO ONE OR MORE ZONES
BHUTAN, 2011	2011, 2012 – O ⁵	NOV 2012/O ⁵	DISEASE PRESENT
INDIA, 2011	2011, 2012, 2013 – O, A, Asia 1 ^{1, 15}	MAR 2013/O, A, Asia 1 ^{3, 15}	LIMITED TO ONE OR MORE ZONES
NEPAL, 2011	2011 – O, A, Asia 1 ^{1, 6} 2012 ²	MAR 2013/O ²	DISEASE PRESENT
SRI LANKA, 2011	2011, 2012 – O ^{1, 5}	2012/O ⁵	½ 2011 - DISEASE PRESENT 2/2 2011 – NOT REPORTED

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P O O L 3

WEST EURASIA & MIDDLE EAST

Iran² - 76 FMD outbreaks were diagnosed clinically. 38 samples were analyzed: in 27 out of 28 positive samples, serotype A was detected, which was still dominant in Iran (Table 4).

Table 4: FMD Sample results

NO SAMPLES	NEGATIVE	UNSUITABLE	TOTAL POSITIVE	A	O
38	6	4	28	27	1

All outbreaks in Sistan Va Blouchestan were detected on fattening quarantine farms.

Egypt⁵ – Serotype O isolate from Egypt, tested by 2dm VNT, showed good matching with three vaccines which were used in the test (O 4625, O Manisa and O Tur 5/09) (Table 5).

Table 5: Vaccine matching results

FIELD ISOLATES	2dm VNT		
	VACCINES		
	O 4625	O Manisa	O Tur 5/09
O Egy 25/12 (mean)	>0,89	0,49	>1.0

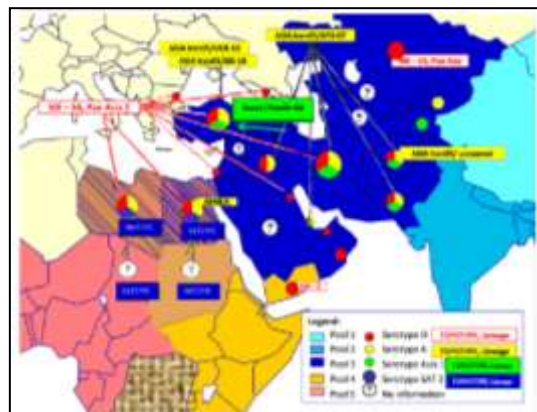
$r1 \geq 0,3$ suggests that there is a close relationship between field isolate and vaccine strain. A potent vaccine containing the vaccine strain is likely to confer protection.

$r1 < 0,3$ suggests that the field isolate is so different from the vaccine strain that the vaccine is unlikely to protect.

1500 sera collected from a survey in Egypt were tested at IZSLER (FAO ref. Center).

Pakistan² - National Workshop on “Development of Strategy for the Control of Foot & Mouth Disease in Pakistan” was held on 23-24 April, 2013 in Islamabad. It has been estimated that FMD in the Islamic Republic of Pakistan results in approximately losses of USD 70 million annually in productions and inhibits export potential to countries free from FMD.

United Arab Emirates⁵ – From two samples collected in January 2013 in Abu Dhabi area, O/ME-SA/PanAsia-2^{ANT10} was derived. Samples were taken from Scimitar-horned Oryx (Oryx dammah).



Map 8: FMD distribution by serotypes 2010 – 2013

FMD history in past 2 years is given in Table 6 and Map 8.

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Table 6: Pool 3 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
AFGHANISTAN, 2011	2011 – O, A, Asia 1 ^{1,5}	DEC 2011 ¹	DISEASE PRESENT
ARMENIA, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	NOT AVAILABLE	NOT REPORTED IN THIS PERIOD
AZERBAIJAN, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	JUN 2001 ¹	NOT REPORTED IN THIS PERIOD
BAHRAIN, 2011	2011 – O, A, Asia 1 ⁵ 2012 – O ⁵	MAR 2012/O ⁵	LIMITED TO ONE OR MORE ZONES
BULGARIA, 2011, ½ 2012	2011 – O ^{1,5}	JUN 2011/O ¹	½ 2011 – DISEASE PRESENT, 2/2011, 2012 - NOT REPORTED IN THIS PERIOD
EGYPT, 2011, ½ 2012	2011 – A, O ^{1,5} 2012 – O, A, SAT 2 ^{1,5}	JUN 2012/SAT 2 ¹	2011 – NOT REPORTED, 2012 - DISEASE PRESENT
GEORGIA, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	2002 ¹	NOT REPORTED IN THIS PERIOD
IRAN, 2011	2011, 2012, 2013 – O ² , A ² , Asia 1 ⁵	APR 2013/O ⁵ , A ² , Asia 1 ⁵	DISEASE PRESENT
IRAQ, 2011	2011 – O, A ¹ 2012 – A ⁵	2012 ⁵ /A	DISEASE PRESENT
ISRAEL, 2011	2011 – O ¹ 2012 – O ⁵	MAR 2012/O ⁵	DISEASE PRESENT
JORDAN, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	2006 ¹	NOT REPORTED IN THIS PERIOD
KAZAKHSTAN, 2011	2011 – O, A ¹ 2012 – O, A ⁵	MAY 2012/O ¹⁰	DISEASE PRESENT
KUWAIT, 2011	2011, 2012 – O ⁵	FEB 2012/O ⁵	DISEASE PRESENT
KYRGYZSTAN, 2011	2011 – O, A ¹	NOV 2011/O, A ¹	LIMITED TO ONE OR MORE ZONES
LEBANON, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	03/2010 ¹	NOT REPORTED IN THIS PERIOD
LIBYA, NO SUBM. REPORTS	2011 – O ⁵ 2012 – O, SAT 2 ⁵	APR 2012 ^{1,5}	DISEASE PRESENT
OMAN, 2011	2011 - NO DATA AVAILABLE	DEC 2011 ¹	DISEASE PRESENT
PAKISTAN, 2011	2011 – Asia 1, O 2012 – O, A, Asia 1 ^{5,13}	NOV 2012/O, Asia 1, A ^{5,13}	LIMITED TO ONE OR MORE ZONES
AUTONOMOUS TERRITORIES PALESTINE, 2011	2011 – O, A, Asia 1 ¹ 2012 – SAT 2 ^{1,5} 2013 ²	MARCH 2013 ²	LIMITED TO ONE OR MORE ZONES
QATAR, 2011	NO DATA AVAILABLE		½ 2011 – NOT REPORTED, 2/2011 DISEASE PRESENT
SAUDI ARABIA, 2011	2012 – O ⁵	JULY 2012/O ⁵	DISEASE PRESENT
SYRIAN ARAB REPUBLIC, 2011	2011, 2012 – NO REPORTED OUTBREAKS ¹	03/2002 ¹	NOT REPORTED IN THIS PERIOD
TAJIKISTAN, 2011	2011 – Asia 1 ¹	NOV 2011/Asia 1 ¹	½ 2011 – NOT REPORTED, 2/2011 - DISEASE PRESENT
TURKEY, 2011, ½ 2012	2011 – Asia 1, A, O ^{5,1} 2012 – Asia 1, A ⁵ , O ¹	DEC 2012/O, A ⁵ , Asia 1 ¹	DISEASE PRESENT

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MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD			
TURKMENISTAN NO SUBM. REPORTS	NO DATA AVAILABLE		UNKNOWN
UZBEKISTAN NO SUBM. REPORTS	NO DATA AVAILABLE		UNKNOWN

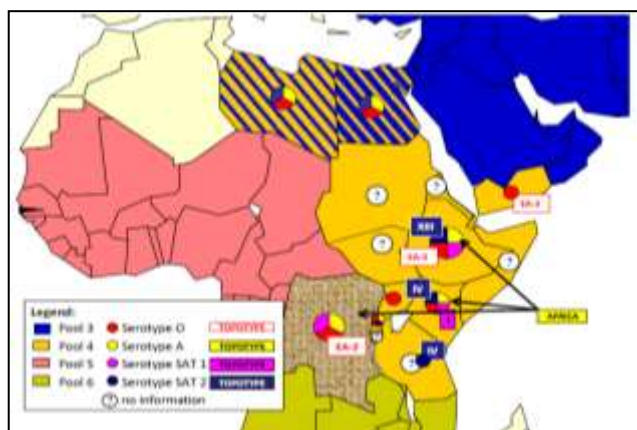
P O O L 4

EASTERN AFRICA

Tanzania⁵ – Serotyping at WRL confirmed that serotypes A (A/AFRICA/G-I), SAT 1 (SAT 1/I) and SAT 2 (SAT 2/IV) had been circulating in Tanzania in last two years.

Uganda¹⁹ – Several outbreaks throughout the country were reported: Isingiro District, Rakai District, Ntungamo district and Kiruhura District which are South Western Uganda, close to Tanzania border. Laboratory testing is on going.

Outbreak was reported in Wakiso district which is very close to the capital city of Kampala. According to AgELISA done at NADDEC, the outbreak was caused by serotype A, which seems to be more virulent, based on spreading of the disease. Quarantine measures are currently in place but vaccination campaign has not started yet. Source of infection is mainly animal movements.



East Africa is known to be FMD endemic area but with limited available data (Map 9).

FMD history in past 2 years is given in Table 7.

Map 9: FMD distribution by serotypes 2010 – 2013

Table 7: Pool 4 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BURUNDI, 2011	2011 – O, A, SAT 1, SAT 2 ⁷	2011 ⁷	UNKNOWN
COMOROS, 2011	2011 - DISEASE SUSPECTED BUT NOT CONFIRMED ¹	2010 ¹	SUSPECTED NOT CONFIRMED
CONGO D. R. , 2011	2011, 2012 O, A, SAT 1 ⁴	APR 2013 ¹⁴ /NOT TYPED	LIMITED TO ONE OR MORE ZONES

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DJIBOUTI, 2011	2011 – ABSENT ¹	NOT AVAILABLE	NOT REPORTED IN THIS PERIOD
EGYPT , 2011, ½ 2012	2011 – A, O ^{1,5} 2012 – SAT 2 ^{1,5}	JUN 2012/SAT 2 ¹	2011 – NOT REPORTED, 2012 - DISEASE PRESENT
ERITREA, NO SUBM. REPORTS	2011 – O ⁵	DEC 2011/O ⁵	UNKNOWN
ETHIOPIA, 2011	2011 – A, SAT 1, O ^{5,7} 2012 – O ⁵	2012/O ⁵	DISEASE PRESENT
KENYA, 2011	2011 – O, SAT 1, SAT 2 ^{1,5} 2012, 2013 – SAT 2, A ⁷	JAN 2013/A, SAT2 ⁷	DISEASE PRESENT
LIBYA , NO SUBM. REPORTS	2011 – O ⁵ 2012 – O, SAT 2 ^{5,7}	APR 2012 ^{1,5}	DISEASE PRESENT
RWANDA, NO SUBM. REPORTS	2011 – ABSENT ⁷ 2012 – NOT TYPED ²	NOV 2012/NOT TYPED ²	UNKNOWN
SOMALIA, 2011	2011 – NO DATA AVAILABLE	2011 ¹	DISEASE PRESENT
NORTH SUDAN, 2011	2011 – A, O ¹	DEC 2011 ¹	DISEASE PRESENT
SOUTH SUDAN, 2011	2011, 2012 – O, SAT 1, SAT 2, A ⁷	2011 ⁷	DISEASE PRESENT
TANZANIA, 2011	2011 – SAT 1(buffalo), SAT 2 (cattle), O ⁷ , SAT3 ^{1,5} 2012 – A, O, SAT 1, SAT 2 ⁵ 2013 – O ¹⁷	MAR 2013/O ¹⁷	DISEASE PRESENT
UGANDA, 2011	2011 – O, A, SAT 1, SAT 2, SAT3 ^{7,2,1} 2012 ¹¹ 2013 - A ¹⁹	APR 2013/A ¹⁹	DISEASE PRESENT
YEMEN, NO SUBM. REPORTS	NO AVAILABLE DATA		

P O O L 5

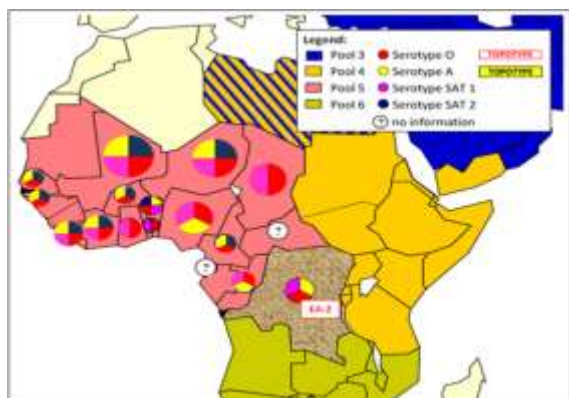
WEST/CENTRAL AFRICA

Democratic Republic of the Congo¹⁴ – In Ruzizi plain, villages Bwegera, Luberizi and Ndunda which are 5 – 10 km far away from the border with Burundi, FMD continues to appear. The animals were vaccinated in February 2013 with trivalent vaccine (A or O, SAT 1, SAT 2).

Outbreaks were reported in cattle in Sange and Kiliba Center village and around Beni city. The high morbidity was observed in in Pasture Kalau, 63,6%. Mortality was between 4,5% in Ruzizi plain and 57,14% in Virunga National Park. No samples have been taken.

Mauritania⁵ – No FMD virus was detected in 27 samples from 2012 submitted to WRL.

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Foot and mouth disease is endemic in West Africa (Map 10). In Gabon, Sierra Leone, Mauritania, Guinea, Guinea Biss. FMD has not been reported at least in the last 3 years.

FMD history in past 2 years is given in Table 8.

Map 10: FMD distribution by serotypes 2010 – 2013

Table 8: Pool 5 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BENIN, 2011	2011 – A, O, SAT 1, SAT 2 ^{4,1}	DEC 2011/O, A, SAT 1, SAT 2 ¹	DISEASE PRESENT
BURKINA FASO, 2011	2011, 2012 – O, A, SAT 2 ⁴	NO PRECISE DATA, DEC 2011 ¹	DISEASE PRESENT
CAMEROON, 2011	2011 – O, A, SAT 2 ^{4,1}	2012 ⁴	DISEASE PRESENT
CAPE VERDE , NO SUBM. REPORTS	NO DATA AVAILABLE		
CENTRAL AFR. REP. 2011	NO DATA AVAILABLE		DISEASE PRESENT
CHAD, NO SUBM. REPORTS	2011, 2012 – A, SAT 1 ⁴	2011/2012 ⁴ , NO PRECISE DATA	UNKNOWN
CONGO D. R. , 2011	2011, 2012 O, A, SAT 1 ⁴	APR 2013 ¹⁴ /NOT TYPED	LIMITED TO ONE OR MORE ZONES
CONGO R., NO SUBM. REPORTS	NO DATA AVAILABLE		
COTE D'IVOIRE, 2011	2011 – SAT 1, A ¹ , O, SAT 2 ⁴	2011 ⁴	LIMITED TO ONE OR MORE ZONES
EQUATORIAL GUINEA, 2011	NO DATA AVAILABLE		DISEASE SUSPECTED, NOT CONFIRMED
GABON, 2011	2011 – ABSENT ¹	NO IN 2006-2012 PERIOD ¹	NEVER REPORTED
GAMBIA, NO SUBM. REPORTS	2011, 2012 –O, A, SAT 2 ⁹	2012 ⁴ /O	DISEASE PRESENT
GHANA, 2011	2011 – O, A, SAT 1, SAT 2 ^{4,1}	2012/O ¹	DISEASE PRESENT
GUINEA BISS., 2011, ½ 2012	2011, 2012 – ABSENT ¹	NO IN 2009-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
GUINEA, 2011, ½ 2012	2011, 2012 – ABSENT ¹	NO IN 2007-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
LIBERIA, NO SUBM. REPORTS	2011, 2012 – A, SAT 2 ⁴	2011/2012 ⁴ , NO PRECISE DATA	UNKNOWN
MALI, 2011	2011/2012 – O, A, SAT 1, SAT 2 ^{4,1}	2011/2012 ⁴ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
MAURITANIA, 2011	2011, 2012 – ABSENT ¹	NO IN 2007-2012 PERIOD ¹	NOT REPORTED IN THIS PERIOD
NIGER, 2011	2011/2012 – O, A, SAT 1, SAT	NO PRECISE DATA,	LIMITED TO ONE OR

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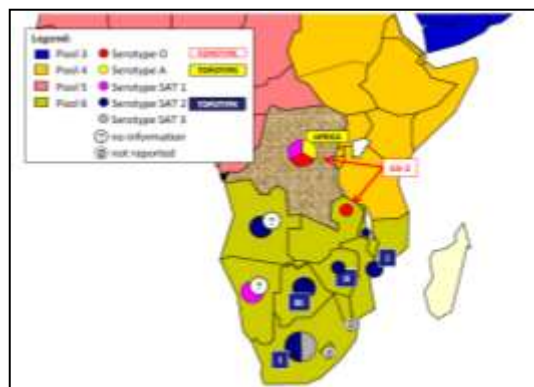
	2 ^{4, 1}	OCT 2011 ¹	MORE ZONES
NIGERIA , 2011, ½ 2012	2011/2012 – O, A ^{4, 1}	OCT/NOV 2012/A, O, SAT 1, SAT 2 ⁴	DISEASE PRESENT
SAO TOME PRINCIPE, NO SUBM. REPORTS	NO DATA AVAILABLE		
SENEGAL, 2011	2011/2012 – O, A, SAT 1, SAT 2 ^{4, 1}	2012/O, A, SAT 1 ⁴	DISEASE PRESENT
SIERRA LEONE, 2011	2011, 2012 – ABSENT ¹	OCT 1958 ¹	NOT REPORTED IN THIS PERIOD
TOGO, 2011	2011, 2012 – O, SAT 1 ^{1, 4, 1}	2012/O ⁴	DISEASE PRESENT

P O O L 6

SOUTHERN AFRICA

South Africa¹ – SAT 2 outbreak within the protection zone of South Africa's FMD control zone where cattle are vaccinated against FMD, is resolved. The outbreak started in 2011. Vaccination for FMD is prohibited in the rest of South Africa.

Botswana¹ – The FMD cases were detected in different crushes during routine vaccinations carried out in February to April 2013. Flooding of the area, which made some animals inaccessible for vaccination and damaged cordon fences, led to contact between buffaloes and cattle and thereby precipitating outbreaks. Samples were collected and submitted to laboratory and results are awaited. Ngamiland is an FMD control zone which is physically isolated from the rest of the country by disease control fences. The zone is further subdivided into four subzones (2a, 2b, 2c and 2d) by internal disease control fences. Cattle residing within the zone are routinely vaccinated every four months using a trivalent SAT 1, SAT2 and SAT3 vaccine. The extensive surveillance so far has revealed that cattle affected are within the subzones of 2c and 2d. As a FMD control zone, no movement of cloven-hoofed animals and their derived fresh products and other FMD risk material has been allowed out of the zone, therefore the outbreak does not affect the status of FMD free zones. A total of 315,292 cattle were vaccinated.



Map 11: FMD distribution by serotypes 2010 – 2013

Swaziland and Lesotho are free from FMD without vaccination. Also, there is a zone in both Botswana and Namibia which is FMD free without, since 2010 and 1997 respectively (Map 11).

FMD history in past 2 years is given in Table 9.

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Table 9: Pool 6 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
ANGOLA, NO SUBM. REPORTS	NO REPORTED OUTBREAKS	DEC. 2010/ SAT 2 ¹	UNKNOWN
BOTSWANA, 2011	2011 – SAT 2 ⁵ SAT 2 ¹ 2012 – SAT 1, SAT 2, SAT 3 ¹	APR 2013 ¹	FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED
CONGO D. R. , 2011	2011, 2012 O, A, SAT 1 ⁴	2011/2012 ⁹ , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
MALAWI, 2011	2011 – SAT 2 ¹	OCT 2011 ¹	DISEASE PRESENT
MOZAMBIQUE, 2011	2011 – SAT 2 ¹	JUN 2011/SAT 2 ¹	DISEASE PRESENT
NAMIBIA, 2011	2011 – SAT 1 ¹ 2012 – SAT 1 ¹	JAN 2012/SAT 1 ¹	FMD FREE ZONE WHERE VACCINATION IS NOT PRACTISED
SOUTH AFRICA, 2011	2011 – SAT 1 ¹ SAT 2 ¹ 2012 – SAT 2 ¹	APR 2012/SAT 2 ¹	DISEASE PRESENT
ZAMBIA, 2011	2012 – SAT 1 ⁵ , SAT 2 ¹	JUN 2012/SAT 1 ⁵	DISEASE PRESENT
ZIMBABWE, 2011	2011 – SAT 2 ¹ 2012/NOT TYPED ¹²	2012/NOT TYPED ¹²	DISEASE PRESENT

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POOL 7

SOUTH AMERICA



Map 12: FMD distribution by serotypes 2010 – 2013

Most South America countries are FMD free with (Uruguay)/without (Chile, Guyana) vaccination or with free zones with/without vaccination. Small areas of the continent are considered as endemic but clinical cases are rare (Map 12).

FMD history in past 2 years is given in Table 10.

Table 10: Pool 7 FMD history 2010-2013

COUNTRY/6 MONTHS REPORTING TO OIE	FMD HISTORY (past 2 years)	LAST REPORTED/TYPE	COUNTRY FMD STATUS ¹	CONTROL MEASURES
ECUADOR, 2011, ½ 2012	2011 – O ^{1,8}	AUG 2011/O ^{1,8}	2011 – DISEASE PRESENT, 2012 – NOT REPORTED	ROUTINE VACCINATION - CATTLE
PARAGUAY, 2011	2011 – O ^{1,8}	DEC 2011/O ^{1,8}	½ 2011 – NOT REPORTED, 2/2011 - LIMITED TO ONE OR MORE ZONES	ROUTINE VACCINATION – CATTLE, BUFFALOES
VENEZUELA, NO SUBM. REPORTS	2011 – O ⁸ A ⁸	2011/O, A ⁸	UNKNOWN	

2012 was the first year without FMD outbreaks in half a century in the Andean region. The progress made in the eradication of FMD in the Andean region contributes to the reduction of poverty and to food security. Peru expects to receive international certification as a territory free of disease, which contributes to poverty reduction and food security. According to official reports submitted to the World Organization for Animal Health, OIE, in 2012 Peru completed more than eight years without the presence of the disease, Bolivia Colombia 4 and 6, respectively²⁰.

The key to the superscripts is below:

1. WAHID Interface – OIE World Animal Health Information Database
<http://web.oie.int/wahis/public.php?page=home>
2. Reports from FAO/EuFMD projects and field officers
3. Dr. Esther TO: Foot and Mouth Disease Hong Kong Situation, Update; Animal Management Division Agriculture, Fisheries and Conservation Department, 10 August 2012
4. FAO/EuFMD supported FMD networks (RESOLAB-FMD West Africa)
5. World Reference Laboratory for Foot-and-Mouth Disease (WRLFMD), www.wrlfmd.org
6. Conference on Scientific Developments and Technical Challenges in the Progressive Control of FMD in South Asia, New Delhi, India, 13-15 February 2012.
7. FAO/EuFMD supported FMD networks (EARLN-FMD Eastern Africa)
8. SENASA, Argentina
9. SEAFMD
10. Open session of the EuFMD, Jerez de la Frontera, Spain. 29-31 October 2012.
11. Ministry of Agriculture Animal Industry and Fisheries. National Animal Disease Diagnostics and Epidemiology Centre (NADDEC) P.o. BOX 513, Entebbe, Uganda
12. Dr C Njagu (Division of Veterinary Field Services):
Current status of the livestock sector in Zimbabwe, ACWG MEETING OF 31STMAY 2012
13. Pakistan – FMD Bulletin, Vol 1 (1-2), January-June, 2012
14. Laboratoire veterinaire de Goma, DRC
15. Project Directorate on Foot and Mouth Disease, Indian Council of Agricultural Research, Mukteswar Nainital Uttarakhand, 263138
16. OIE/China national FMD reference laboratory
17. Center for Infectious Diseases and Biotechnology, Tanzania, Veterinary Laboratory Agency, Nelson Mandela/Temeke Yombo roads junction
18. FMD news, <http://cadms.ucdavis.edu>
19. Ministry of Agriculture Animal industry and fisheries, Uganda
20. www.fao.org/Ag/AGAInfo/home/en/index.htm