June, 2013

Foot-and-Mouth Disease situation

Food and Agriculture Organization of the United Nations

Monthly Report

June 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.

Contents

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

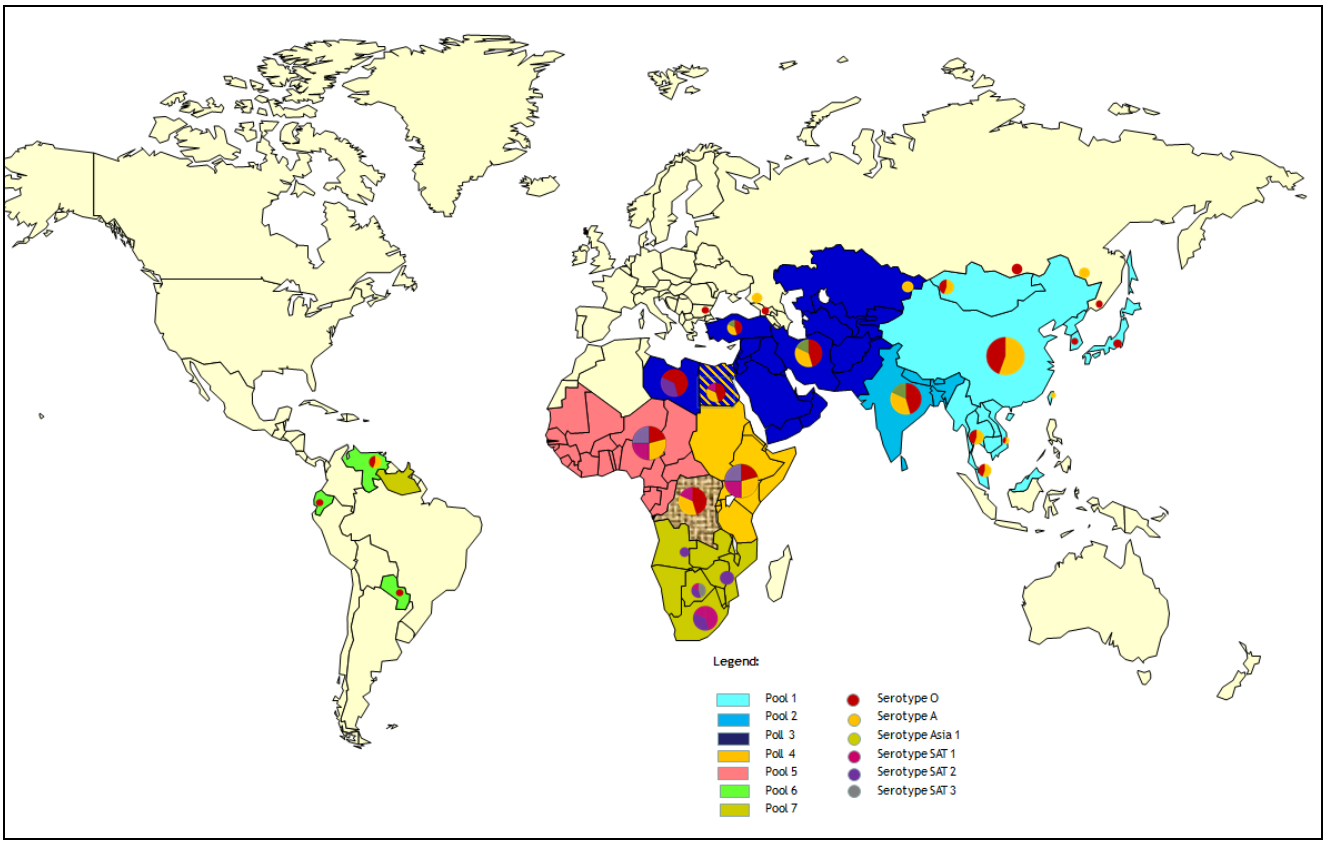


Table 1: List of countries representing each virus pool

POOL	REGION/COUNTRIES	SEROTYPES
1	**CENTRAL/EAST ASIA** (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**
2	**SOUTH ASIA** Bangladesh, Bhutan, India, Nepal, Sri Lanka	**O, A, Asia 1**
3	**WEST EURASIA & MIDDLE EAST** (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	**EASTERN AFRICA** (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	**WEST/CENTRAL AFRICA** (Benin , Burkina Faso, Cameroon, Cape Verde, Central Afr. Rep., Chad, Congo D. R., Congo R., Cote d'ívoire, 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	**SOUTHERN AFRICA** (Angola, Botswana, Congo D. R., Malawi, Mozambique, Namibia, South Africa, Zambia, Zimbabwe)	**{O, A}*, SAT 1, SAT 2, SAT 3**
7	**SOUTH AMERICA** (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

China[1, 21] – Several outbreaks of serotypes A and O were reported in cattle in Yunnan Province (type A) and in Xizang in Tibet (type O).

Russia[1] – FMD serotype A outbreak in Amurskaya oblast, on the border with China, caused by type A, SEA-97 lineage.

POOL 2

Nepal[2] – Serotype O in the Kathmandu valley is still present and causing outbreaks.

POOL 3

Russia[2] **–** Several outbreaks in the Krasnodar Krai region caused by type A Iran-05 lineage.

Kazakhstan[1] **–** Outbreaks of serotype A in cattle in Eastern Kazakhstan – Akshokinsky, Urdzharsky Region; Tarbagatay District, as well as Zhanaaul and Manyrak Rural Districts.

Turkey[2] – 176 FMD outbreaks reported in Anatolia in June 2013. The current FMDV strains presented in this area are O PanAsia 2 [GUM12, AGR-13, FAR-09, ADA-13]; A Iran 05 [BAB12] and Asia 1 [Sindh-08].

Iran[2] **–** 168 FMD outbreaks (type A and O) in Iran in June 2013. Predominant is serotype A of FMDV.

POOL 6

Zimbabwe[1] – Reoccurrence of FMD in cattle in Chisumbanje, Chipinge, MANICALAND, as well as in three villages in Levanga, Gudo and Masapasi, Masvingo Province in South-East Zimbabwe. FMDV serotype is pending. An FMD type SAT 3 outbreak was reported in Drysdale, Umguza, Matabeleland North, Western part of Zimbabwe.

COUNTER

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

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

FOCUS ON FMDV TYPE A IN WEST EURASIA AND CENTRAL/EAST ASIA

1. *FMDV A/Iran-05 has caused an outbreak in Krasnodar Krai, South-West Russia (sub-lineage unknown yet). The degree to which the available vaccines match this virus is not yet known. There is a risk of further spread within the region.*

2. *FMDV A Iran-05 $^{BAR-08}$ has been detected by WRL in 10 samples collected over a period of months in Egypt. The three FMDV A Iran-05 $^{BAR-08}$ isolates from the Gaza outbreak in April 2013 are very closely related. Vaccine matching performed by WRL on these isolates suggests there is a poor match between these viruses and the vaccines tested; this is a matter of concern to the region.*

3. *FMD type A/ASIA Sea-97 sublineage is circulating in the Central/East Asian region in 2012 – 2013. The recent genetic analysis of FMDV type A (A GDMM-CHA-2013-S(LVRI)), which were collected in March 2013 from cattle and pigs in North China (Chengbey District, Xining, Qinghai) and a Russian strain (A/Zabaikalsky/RUS/2013), collected on 1 Mar 2013 from cattle in Molodezhny, Priargunsky district, Zabaikalsky kray, South – East Russia (close to the Chinese border) revealed close genetic relationship (both had 99.06% genetic identity within VP1 coding region) with FMDV type A virus collected in October 2012 in Southern Thailand (Nakhon Pathom). They all belong to the same type A / ASIA Sea-97 strain of FMDV. New FMD outbreaks have been reported in July 2013 in BAYAN-ULGII, West Mongolia (close to China's border and located within 25-50 km from the Russian border and from East Kazakhstan) caused by type A of FMDV. The genetic sublineage is still unknown.*

4. *Several sublineages of FMDV A Iran 05 are still present in the endemic area of West Eurasia in 2013 and were reported as follow: A/ASIA/Iran-05^{SIS-12} (Pakistan); A/ASIA/Iran-05 $^{SIS-10}$ (100% identity with the isolates from Pakistan in 2012) and A/ASIA/Iran-05 $^{AFG-07}$ (Iran) and A Iran-05 $^{SIS-10}$; A Iran-05 ^{USK11} A Iran-05 $^{WES-11;}$ A Iran-05 ^{AMS12}; A Iran-05 ^{BAB12} (Turkey).*

   Following the genetic analysis data, the new FMD virus strains have rapidly spread from Southern Asia (Thailand, Viet Nam) to the northern regions in Central/East Asia, and from South and East Eurasia (Pakistan, Iran) to the Western territories (Turkey) posing threats to Europe.

III. DETAILED POOL ANALYSIS

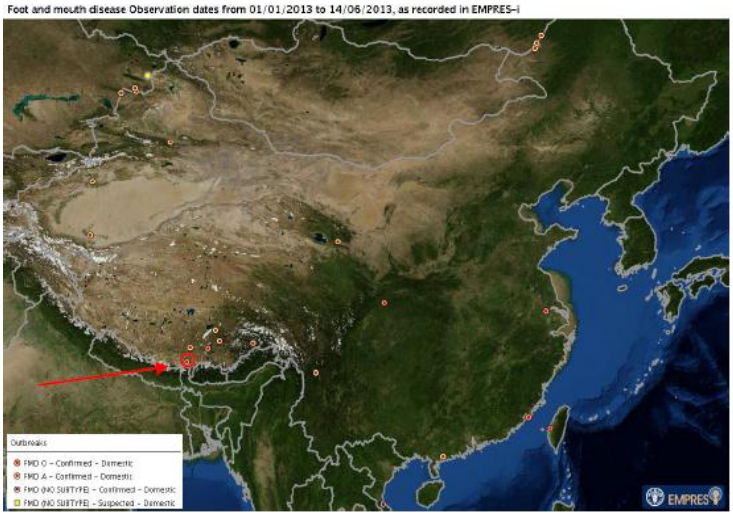
A. POOL 1 – Central / East Asia

China[1, 21] – Several outbreaks caused by FMDV serotypes A and O were reported by the Ministry of Agriculture in different parts of China:

- Southwest China, Yunnan Province - Serotype A outbreak in cattle in a village in Shangri La County; culling and disinfection was applied (map 2). 1,767 cattle were culled.
- Gamba County, Shigatse Prefecture, Xizang (Tibet) Autonomous Region – confirmed serotype O outbreak in cattle; control measures were reported as culling of all animals in the infected herd (map 3).

Map 2: FMDV serotype A outbreak in cattle, Shangri-La County, Yunnan Province, Southwest China (Wahid, OIE)

Map 3: FMDV serotype O outbreak in cattle; Gamba County, Shigatse Prefecture, Xizang (Tibet) Autonomous Region (tip of red arrow; EMPRESi)

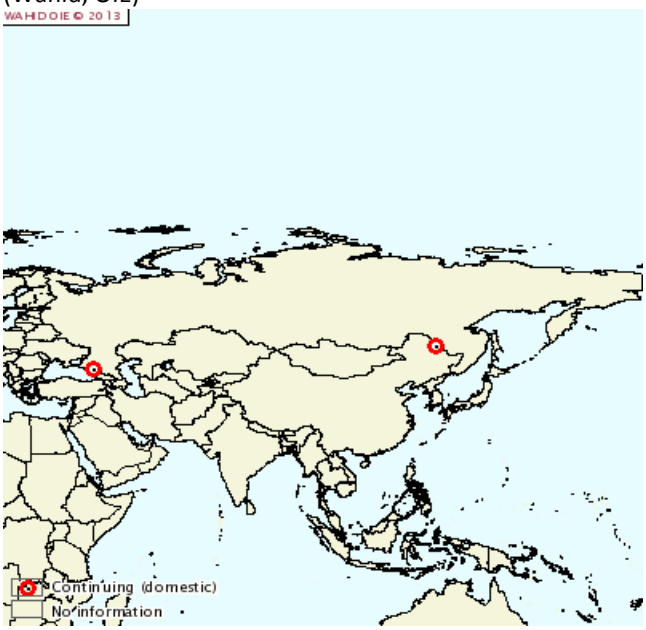


China, Taiwan Province (Chinese Taipei)[1] - serotype O in pigs was reported on the 17th of June 2013 in Wuri District, Tái- Chung Shin (Province of Taiwan[1]), following the previous notifications of type O seropositive animals (pigs) in Baozhong Township, Yun-Lin in May 2013 which were found in the frame of a routine FMD serological surveillance in Baozhong Towship region (map 4).

Map 4: FMD serotype O positive serology in pigs in Taiwan Province (Chinese Taipei), China (Wahid, OIE)

Russia[1,5]***:*** An outbreak of FMD type A, SEA-97 lineage was reported in Junein Amurskaya Oblast. Modified Stamping out was applied as a control measures (map 5).

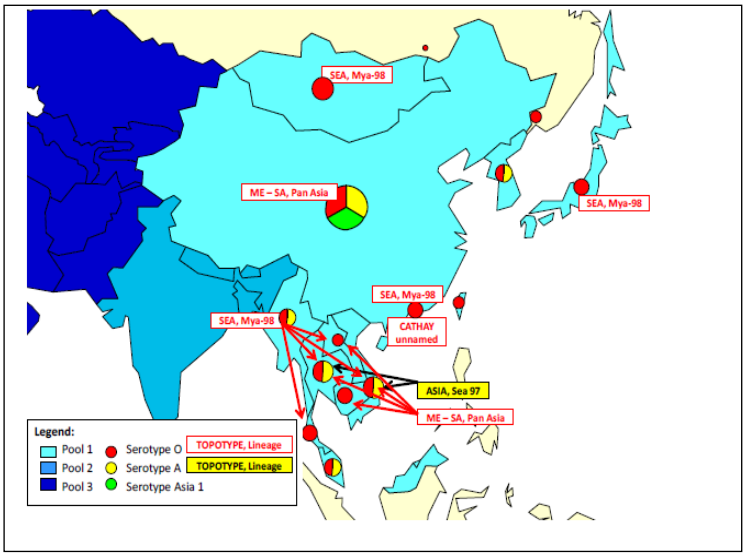
Map 5: FMD type A outbreaks in Amurskaya Oblast (24.6.2013) and Motovskoy, Krasnodarskiy Kray (26.6.2013), (Wahid, OIE)



Viet Nam[1, 5] **–** An FMD type A outbreak was reported in central Viet Nam in April 2013 in the provinces of Ha Tinh and Thanh Hoa. This type A FMD virus belongs to SEA-97 strain of topotype Asia, which is circulating in the endemic area of Central/East Asia for the last 2 years.

There is a zone covering the provinces of Sabah and Sarawak in Malaysia which is designated as FMD free without vaccination. In China, the main threat comes from O (O/Mya-98) strain and PanAsia strain. The O (O/Mya-98) strain mainly affects pigs, although cattle and goat/sheep can also show clinical signs in some field cases. However, the type O (O/PanAsia) strain mainly affects cattle.

Map 6: FMD distribution by serotypes 2010 – 2013



Thailand [5]**:** Seven samples collected in 2012-13 were submitted to WRL for genotyping recently; all were type A SEA-97 lineage. One was very closely related (99.06% VP1 identity) to A/SEA-97 virus isolates from Russia (close to the border with China) and China. This illustrates that these viruses became disseminated across vast distances in a relatively short time. This highlights the continued threat posed to livestock in the region and in neighboring regions of rapid spread of new virus sub-lineages.

FMD history in the past 2 years for this pool is given in Table 2.

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]	JUNE 2013/A[1]/ O[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]	JUNE 2013/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, 2/2011 -NOT REPORTED
MYANMAR, 2011	2011 – O[1]	FEB2012/O[9]	DISEASE PRESENT
RUSSIAN FEDERATION, 2011	2011 – O[1] 2012 – O[1] 2013 – A[1]	JUNE 2013/A[1]	½ 2011 – NOT REPORTED, 2/2011 - 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

B. POOL 2 – South Asia

Nepal[2] –Serotype O is circulating in the Kathmandu valley.

India[2] – FMDV serotypes O (O Ind-2001 lineage) and A (genotype 18) reported in India in June 2013.

Bangladesh[23]***:*** Two distinct serotypes A and O of FMDV were reported to have been circulating in Bangladesh in 2012 with an abundance of serotype A in Chittagong and Gazipur districts and serotype O in Pabna and Faridpur. Phylogenetic analysis of VP1 sequences revealed that serotype O sequences were closely related to the Ind 2001 sublineage of Middle East-South Asia (ME-SA) topotype that was previously circulating in Bangladesh, and serotype A sequences belonging to the genotype VII that was dominant in India during the last decade. The results suggest that extensive cross-border animal movement from neighboring countries is the most likely source of FMDV serotypes in Bangladesh.

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.

Map 7: FMD distribution by serotypes 2010 – 2013

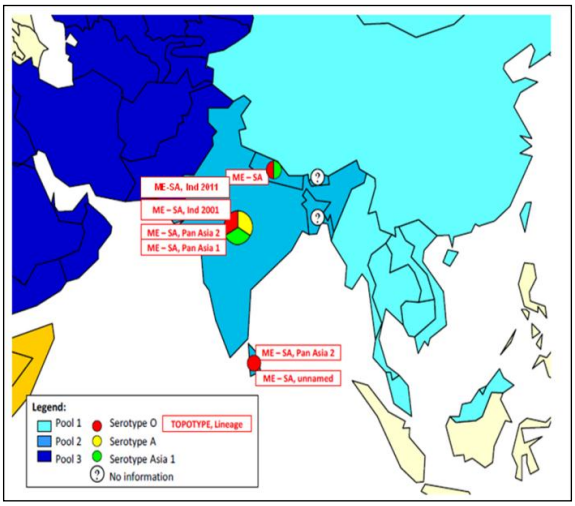


Table 3: Pool 2 FMD history 2010-2013

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 2011DISEASE PRESENT, 2/22011-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 2/22011 – NOT REPORTED

C. POOL 3 – West Eurasia & Middle East

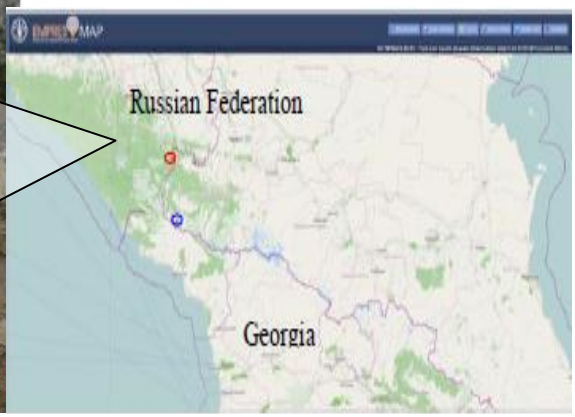
Russia[1,2] **–** A serotype A, Iran-05 lineage outbreak started on 3 June 2013 in a village in the Garnukha mountain region, Urupsky raion, Karachayevo-Cherkesskaya, affecting 90 out of 600 susceptible animals (cattle). Further outbreaks were reported in Solenoe Village, Mostovskiy District, Krasnodarskiy Krai and Cossack village, Urupsky Rayon, Karachaevo – Cherkesskaya (yellow circle on the map 8 and red circle on the map 9).

Control measures were applied and were reported as quarantine and movement control measures with no vaccination or culling of the animals.

The outbreak is situated in the buffer zone with vaccination against FMD, 5 km from the border with Karacha-Cherkessia Republic (blue circle on the map 9). The distance from the outbreak to the border with Georgia is 60 km. Wild, cloven-hoofed animals have been implicated by epidemiological inquiries as the possible source of infection.

Map 8: FMD serotype A outbreak in Solenoe Village, Krasnodarskiy Krai and Cossack village, Karachaevo – Cherkesskaya resp. on 18 June 2013.

Map 9: FMD serotype A outbreak in Solenoe Village, Mostovskiy District and Cossack village, Urupsky Rayon (red circle on the map) near to the border with Karacha-Cherkessia (blue circle) ble circle indicates



Kazakhstan[1] – Following the initial report of FMD type A outbreak in May 2013, a continued circulation of the FMDV was reported in East Kazakhstan in June 2013. FMD type A outbreaks have been reported in Akhmetbulak and Manyrak, Tarbagatay region (near the border with China) (red circle on the map 10). The source of infection is listed as due to illegal movement of animals and contact with wild species. Vaccination was applied in response to the outbreak. Zoning, quarantine measures and movement control inside the country were set as a control measures.

Map 10: FMD serotype A outbreaks in East Kazakhstan, Tarbagatay district in June 2013 (red circle), (Wahid, OIE)

***Turkey*[2] –** 176 FMD outbreaks in cattle and small ruminants (sheep and goats) were reported in Anatolia in June 2013. The number of FMD outbreaks and the current genetic sublineage are given in table 4.

Table 4: FMDV outbreaks in Turkey by serotypes (June 2013)

FMDV serotype	Number of outbreaks	FMDV sublineage/strain
O	57	O PanAsia 2 GUM12, AGR-13, FAR-09, ADA-13
A	79	A Irn 05 BAB12
Asia 1	7	Asia 1 Sindh-08
Untyped	33	
TOTAL:	**176**	

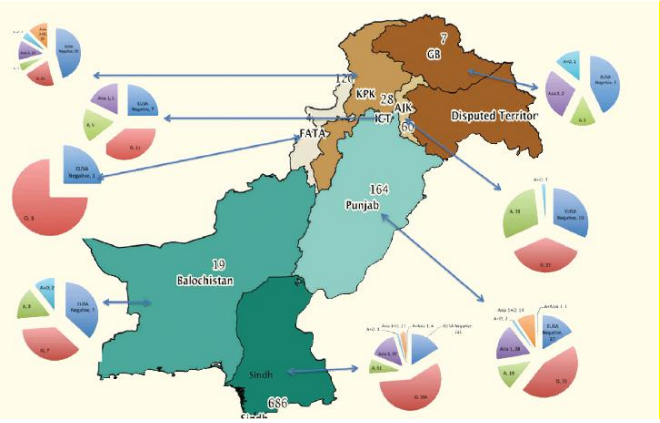
***Iran*[2]:** 168 FMD outbreaks, caused by serotypes A and O of FMDV have been reported in Iran in June 2013. The higher number of outbreaks in Iran during the last 2 months is attributed to more intensive seasonal movement of animals in the country. The disease was clinically diagnosed in small and large ruminants and laboratory confirmed, with serotype A predominating.

***Egypt*[5]:** Ten samples collected over several months in 2013 were genotyped by WRL, and identified as A/Iran-05/BAR-08 sublineage. These viruses were very closely related to the three virus isolates from the Gaza Strip outbreak of April 2013 (99.84% VP1 identity). Phylogenetically, this group of 13 viruses is located relatively distantly from other A/Iran-

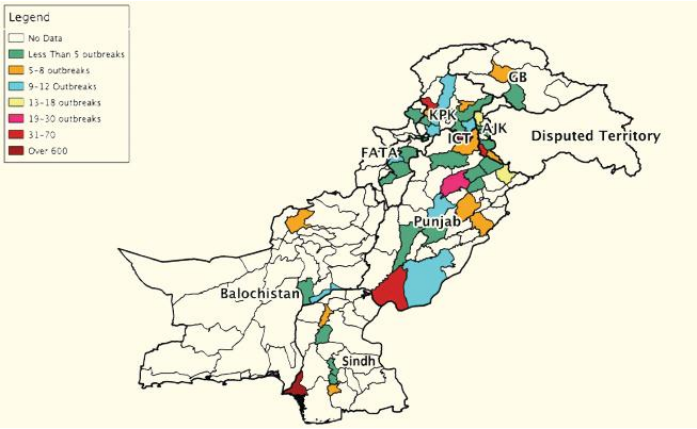
05/BAR-08 viruses. This may indicate that this strain has been circulating for some time without isolates being submitted for phylogenetic analysis. This highlights the importance of active surveillance on an ongoing basis in this region. Vaccine matching results from WRL indicate a poor match between these viruses and the vaccines tested.

Pakistan[13] – 1088 FMD outbreaks due to serotypes O, A and Asia 1 of FMDV were reported in Pakistan in 2012. The main affected provinces were Punjab, Sindh, Khyber Pakhtunkhwa, Balochistan, Gilgit-Baltistan, FATA, AJK and Islamabad. The most predominant was type O of FMDV (533 outbreaks); followed by Asia 1 (147 outbreaks); 103 – caused by type A; 231 – untyped and 74 mixed (reported as Types O, A and Asia1 infection). District level distribution of the FMD outbreaks in Pakistan in 2012 is given on the map 11 and map 12.

Map: 11: FMD outbreaks in Pakistan in 2012 by serotypes: (red – type O; green – type A; violet – type Asia 1; dark blue – ELISA neg.; light blue and orange – mixed infection)



Map 12: District lever distribution of the FMD outbreaks in Pakistan in 2012



FMD history in past 2 years is given in Table 5 and Map 13.

Map 13: FMD distribution by serotypes 2010 – 2013

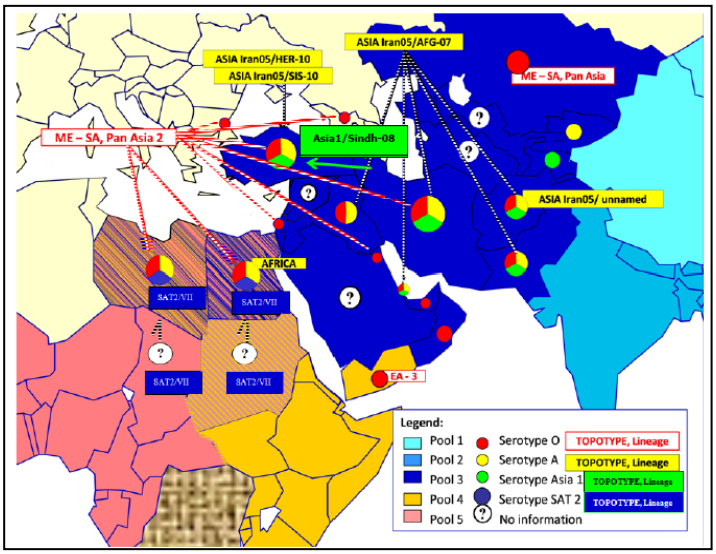


Table 5: Pool 3 FMD history 2010-2013

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, 2/22011, 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]	JUNE 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]	JUNE 2013/ A[1]	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 - A [2]	MARCH 2013[2]	LIMETED TO ONE OR MORE ZONES
QATAR, 2011	NO DATA AVAILABLE		½ 2011 – NOT REPORTED, 2/22011DISEASE 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, 2/22011 - DISEASE PRESENT
TURKEY, **2011, ½ 2012** **MONTHLY REPORTS REGULARLY SUBMITTED TO EUFMD**	2011 – Asia 1, A, O[5,1] 2012 – Asia 1, A[5], O[1]	JUNE 2013/O, A[5], Asia 1[1]	DISEASE PRESENT
TURKMENISTAN **NO SUBM. REPORTS**	NO DATA AVAILABLE		UNKNOWN
UZBEKISTAN **NO SUBM. REPORTS**	NO DATA AVAILABLE		UNKNOWN

D. POOL 4 – Eastern Africa

East Africa is known to be FMD endemic area but with limited available data (Map 14).

FMD history in past 2 years is given in Table 6 below.

Map 14: FMD distribution by serotypes 2010 – 2013

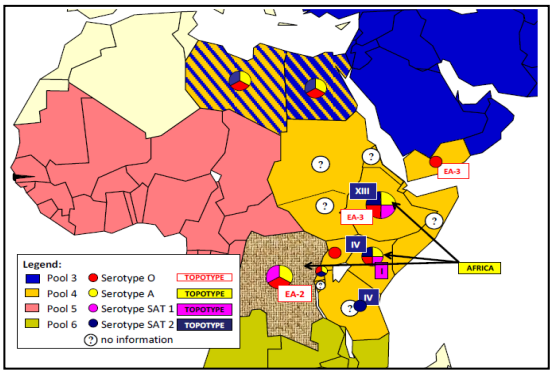


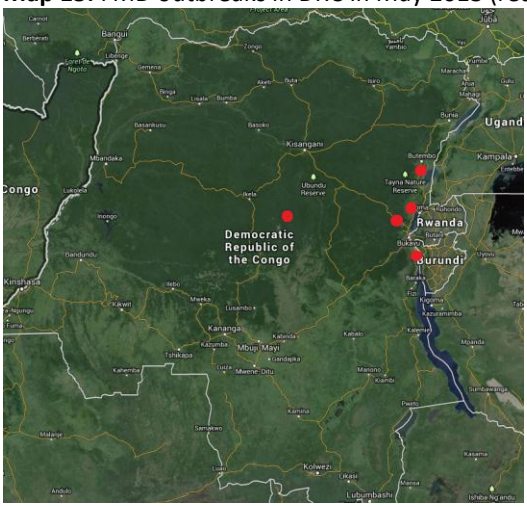
Table 6: Pool 4 FMD history 2010-2013

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
DJIBOUTI, 2011	2011 – ABSENT[1]	NOT AVAILABLE	NOT REPORTED IN THIS PERIOD
EGYPT , 2011, ½ 2012	2011 – A, O[1, 5] 2012 – A, O 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		

E. POOL 5 – West / Central Africa

Congo D. R. [2] **-** FMD outbreaks which occurred in May were reported in the eastern part of Democratic Republic of the Congo on 14th of June 2013. The reported cases are located in South Kivu (Sange village - 5 to 10 km distance from the border with Burundi) and North Kivu (Beni, Lubero, Rutshuru, Nyiragongo and Masisi) (Map 15). 102 out of 3 000 cattle were affected in Sange area. Two more outbreaks were reported in cattle in Kagando and Kiliba Villages (near to the border with Burundi) on 14 July. The serotypes involved were not reported. These reports highlight that, although laboratory data may be lacking, FMD is common in this region.

Map 15: FMD outbreaks in DRC in May 2013 (red dots indicate the outbreaks), (Gmaps)



Foot and mouth disease is endemic in West Africa (Map 16). In Gabon, Sierra Leone, Mauritania, Guinea, Guinea Bissau. FMD has not been reported at least in the last 3 years.

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

Map 16: FMD distribution by serotypes 2010 – 2013

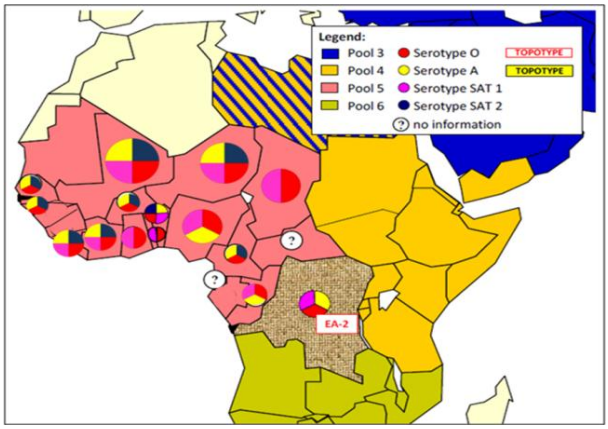


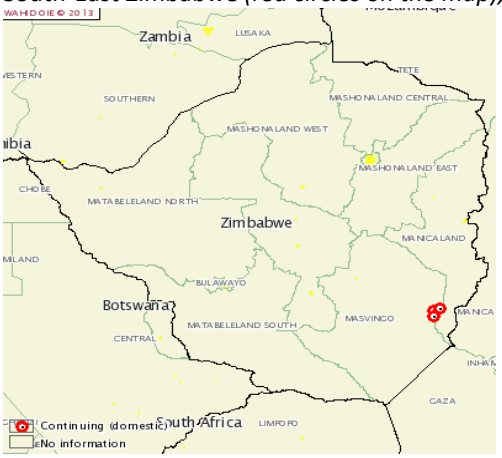
Table 7: Pool 5 FMD history 2010-2013

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]	JUNE 2013[14]/NOT TYPED	DISEASE PRESENT
CONGO R., NO SUBM. REPORTS	NO DATA AVAILABLE		
COTE D'ÍVOIRE, 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 2[4, 1]	NO PRECISE DATA, OCT 2011[1]	LIMITED TO ONE OR 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

F. POOL 6 – Southern Africa

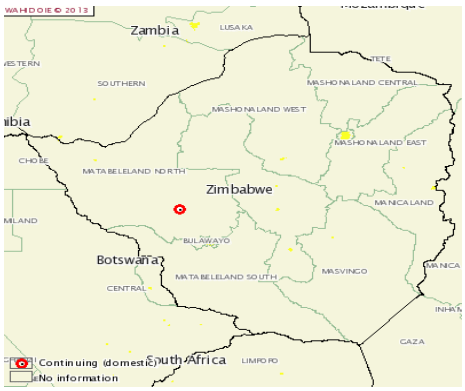
Zimbabwe[1] – Reoccurrence of FMD in cattle was reported on 11 June 2013 in Manzvire, Chisumbanje, Chipinge, MANICALAND (Southeast of Zimbabwe) (map 17). 5 out of 22 cattle were affected; wild animals were suspected as a possible source of infection. The National Veterinary Laboratory confirmed the diagnosis on 6 June 2013 by PCR (FMDV serotype is pending). Three additional FMD outbreaks in cattle have been confirmed on 24 June 2013. Three villages in Levanga, Gudo and Masapasi, Chiredzi, a small town in the Masvingo Province in South-East Zimbabwe (map 17) have reported a total of 404 cases within a susceptible population of 4,500 cattle. The source is listed as contact with wild buffaloes that escaped from a nearby wildlife conservancy farm.

Map 17: FMD in cattle in Manzvire, Manicaland, Southeast of Zimbabwe and in Chiredzi, Masvingo Province in South-East Zimbabwe *(red circles on the map),* (Wahid, OIE)



A new FMD SAT 3 outbreak was reported on 30 June 2013 in Drysdale, Umguza, Matabeleland North in the western of Zimbabwe. In total, 20 out of 1,908 cattle were infected. The epidemiological inquiry implicated illegal movement of animals from Tsholotsho District (red circle on the map 18) for grazing. Quarantine, movement control, control of wildlife, zoning and vaccination are applied to control the disease.

Map 18: FMD SAT 3 outbreak reported on 30 June 2013 in Drysdale, Umguza, Matabeleland North in the western of Zimbabwe (red circle), (Wahid, OIE)



Swaziland and Lesotho are free from FMD without vaccination. Also, there is a zone in both Botswana and Namibia which is FMD free without vaccination, since 2010 and 1997 respectively (Map 19).

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

Map 19: FMD distribution by serotypes 2010 – 2013

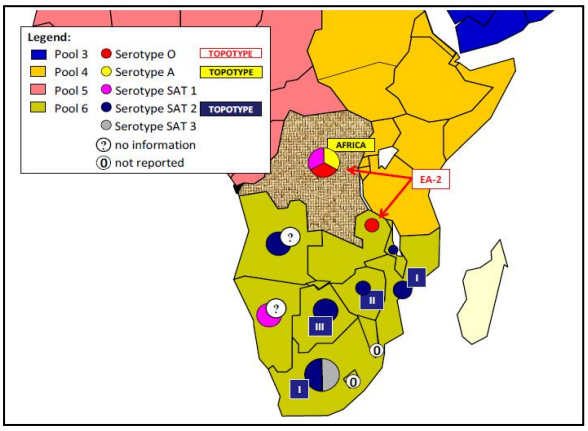


Table 8: Pool 6 FMD history 2010-2013

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]	JUNE 2013/NOT TYPED[12]	DISEASE PRESENT

G. POOL 7 – South America

No new events have been reported for this reporting period.

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 20).

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

Map 20: FMD distribution by serotypes 2010 – 2013

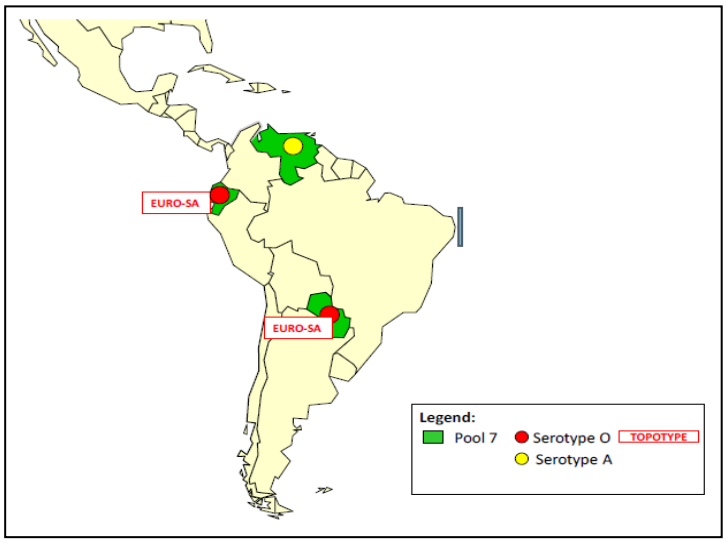


Table 9: Pool 7 FMD history 2010-2013

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, 2/22011 - LIMITED TO ONE OR MORE ZONES	ROUTINE VACCINATION – CATTLE, BUFFALOES
VENEZUELA, NO SUBM. REPORTS	2011 – O[8] A[8]	2011/O, A[8]	UNKNOWN	

In 2012 was the first year without reported 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. 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, respectivly[20].

IV. OTHER NEWS

South America [24]**:** A Plan of Action 2011-2020 for the Eradication of Foot-and-Mouth Disease from the American continent was established, based on the experience acquired by the countries and PANAFTOSA during the past 60 years and reflecting the importance of the Foot-and-Mouth Disease for the social and economic development of the American continent. To advance the regional elimination efforts in the 1980s, countries agreed on a Plan of Action 1988-2009 of the Hemispheric Program for the Eradication of Foot-and-Mouth Disease, but it did not reach the goal of elimination from the continent. This new plan of Action 2011-2020 is now being implemented.

Pakistan [25]**:** On 23-24 April 2013, representatives of the Ministry of National Food Security and Research as well as National and Provincial veterinary authorities of Pakistan met in Islamabad for the national workshop on "*Development of Strategy for the Control of Foot and Mouth Disease (FMD) in Pakistan*". The workshop was organized by FAO under the United States Department of Agriculture funded project GCP/PAK/123/USA "*Support to Increase Sustainable Livestock Production – Progressive Control of FMD in the Islamic Republic of Pakistan*".

V. REFERENCES

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