



**Foot-and-Mouth Disease situation**  
**Food and Agriculture Organization of the United Nations**  
**Monthly Report**  
**June 2012**

**Information sources used:**

Databases:

Emergency Prevention System-Animal Health/Global Early Warning System (EMPRES-AH/GLEWS)  
FAO EMPRES-i Global Animal Disease Information System  
OIE WAHID World Animal Health Information Database

FAO World Reference Laboratory for FMD (WRLFMD)

Other sources:

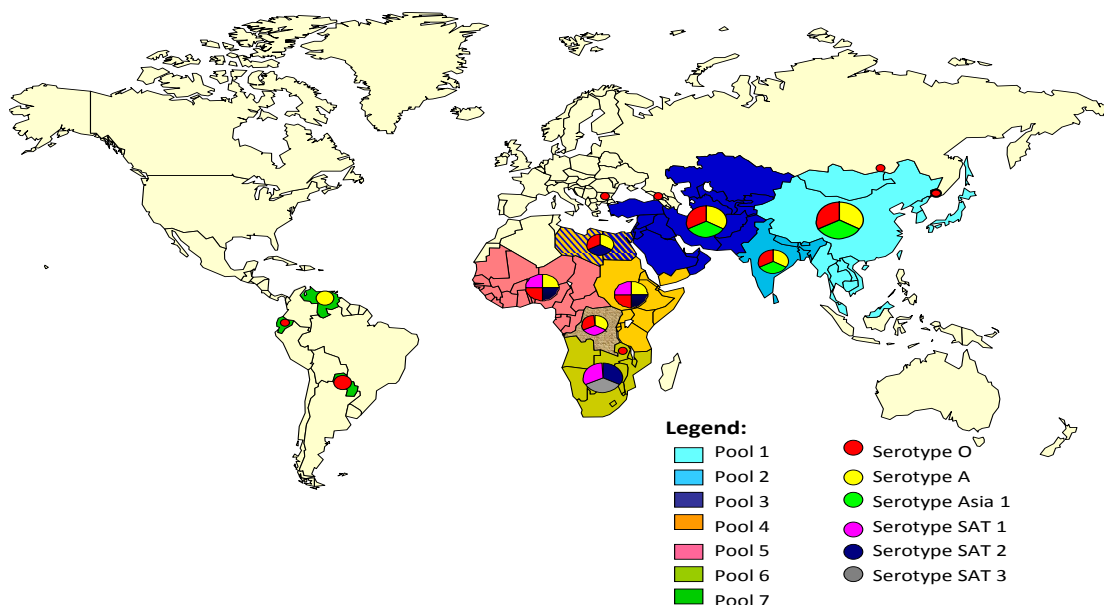
FAO/OIE Global Conference on Foot and Mouth Disease Control, Bangkok June 27-29 2012  
FAO/EuFMD supported FMD networks (EARLN-FMD Eastern Africa, RESOLAB-FMD West Africa)  
FAO/EuFMD projects and field officers  
Crisis Management Centre-Animal Health (CMC-AH)  
Welnet

Review process:

This report (in draft) was circulated for comment to focal points of the FAO Reference Centres for FMD (including Centres in process of recognition) and OIE Reference laboratories for FMD.  
The following are thanked for their comments:

*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.*

## **Foot-and-mouth disease (FMD) distribution by Serotype and the seven virus pools, 2010-2012**



### **HEADLINE NEWS**

#### **Pool 1:**

- **Malaysia<sup>2</sup>** - Serotype O in cattle in Negeri Sembilan.

#### **Pool 2:**

- **Sri Lanka<sup>12</sup>** – has recommenced FMD vaccine production in 2012.

#### **Pool 3:**

- **Kazakhstan<sup>4</sup>** – Serotypes A and O isolated from samples taken 2010-2012.
- **Kyrgyzstan<sup>4</sup>** - Serotype A isolated in a sample taken in November 2011

#### **Pool 4:**

- **The Democratic Republic of Congo<sup>8</sup>** – FMD spreading rapidly in the East of the country.
- **Ethiopia<sup>8</sup>** – Further outbreak of FMD in Amhara Region.
- **Uganda<sup>8</sup>** – Outbreaks of FMD reported in Central, Eastern and Northern Regions.

#### **Pool 5:**

- Boundaries of Pool 4 and Pool 5 are under review (WRL with FAO), reflecting the questions raised by the genotyping of the recent multiple SAT 2 Serotypes in North Africa and by the Eastern Africa FMD Laboratory Network Meeting in Nairobi.

## **FAO/OIE 2<sup>nd</sup> Global Conference on Foot and Mouth Disease Control, Bangkok June 27-29 2012**

An overview of recent FMD isolates by the FAO Network labs, was given by Jef Hammond WRL, Pirbright, England

Serotyping results for 2010:

- The network labs received over 2,300 samples in 2010 from 38 countries.
- 80% of the samples were Serotype O.
- Asia1 was only isolated in samples submitted from India.
- Serotypes C and SAT3 were not detected.

Serotyping results for 2011:

- The network labs received over 2,400 samples in 2011 from 34 countries.
- 60% of the samples were serotype O.
- Increased detection of Asia1 with isolates from 6 countries as compared to being isolated only in India in 2010.
- Serotype C was not detected.

Serotyping results for 2012 so far:

- The network labs have received over 500 samples so far in 2012 from 18 countries.
- 43% were serotype O, 25% ASIA 1, 18% A, 14% SAT 2.
- Laboratory vaccine matching showed a poor match between field Asia 1 strains and Asia 1 Shamir.

Current FMD Threat Analysis: from reported incidence:

- Serotype O - widespread circulation:
  - topotype ME-SA, lineage PanAsia-2
  - topotype SEA, lineage Mya-98.
- Serotype A-widespread circulation:
  - topotype ASIA, lineage Iran-05 and other topotypes.
  - topotype Iran-05 lineage and other topotypes.

Serotypes SAT exhibit restricted circulation – they have not established outside of Africa, but a recent incursion of SAT 2 into North Africa and Middle East have caused an epidemic in Egypt.

**Pool 1. CENTRAL / EAST ASIA**

Country	Data WRL FMD <sup>4</sup> 2011/ 2012	Data from field officers <sup>3</sup> 2011/ 2012	Reported serotype/outbreaks in OIE 2012 <sup>1*</sup>		Reported serotype/outbreaks in OIE 2011 <sup>1*</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks
Cambodia	O		...*		?*	94
China (People's Rep. of)		Asia 1?	O	1	O	8
China (Hong Kong, SAR)	O		FMDV Genome detected.		No details have been submitted.	
China (Taiwan Province)			O	12	O	12
Japan			...		Reported as absent.	
Korea (DPR)	O		...		O	114
Korea (Rep. of)	O		...		O	155?
Lao PDR	O		...		No details have been submitted.	
Malaysia	O		...		O, A	28
Mongolia			...		No new outbreaks in 2011 and 2010 event resolved 01/09/2011	
Myanmar			...		23/03/2011 – report confirming no new outbreaks	
Russian Federation			O	2	O	1
Thailand	A	12 outbreaks 2012 <sup>12</sup>	...		O, A	31
Viet Nam	O		...		O	449

**\* See Annex 1 at the end of this report for Legend for new codes used regarding OIE outbreaks in this and subsequent table.**

### ***New events in Pool 1***

- **Malaysia<sup>2</sup>** - FMD, Serotype O has been reported in Negeri Sembilan which is about 100km south east of Kuala Lumpur. The species affected is cattle.
- **Thailand<sup>12</sup>** - June 27- 29 2012 FAO/OIE Global Conference on Foot and Mouth Disease Control was held in Bangkok.  
Tritsadee Chaosuancharoen, Director-General, Department of Livestock Development in Thailand confirmed that the national FMD plan has moved from control to eradication; the key activities for the establishment of an FMD Free Zone (with vaccination) in Eastern Thailand were outlined; it was reported that in the period January to June 2012 there were 12 outbreaks of FMD.

### ***Significant events in Pool 1 from previous months.***

- **Taiwan, Province of China<sup>1</sup>** - On 1 May 2012 samples were collected during routine active FMD serosurveillance and NSP antibodies were detected . All pigs appeared healthy and the national laboratory confirmed positive results for NSP antibody but virus isolation and RT-PCR were all negative. Serotype O was confirmed. Control measures have been put in place and an investigation carried out.

### **Pool 2. SOUTH ASIA**

Country	Data WRL FMD <sup>4</sup> 2011	FAO-ICAR International conference 2012 <sup>7</sup>	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype			
Bangladesh					+..		+..	
Bhutan					?	6	?	5
India		O, A, Asia 1			O, Asia 1	439	O, A, Asia 1	422
Nepal					O, Asia 1	72	O	22
Sri Lanka	O				O	6	O	18

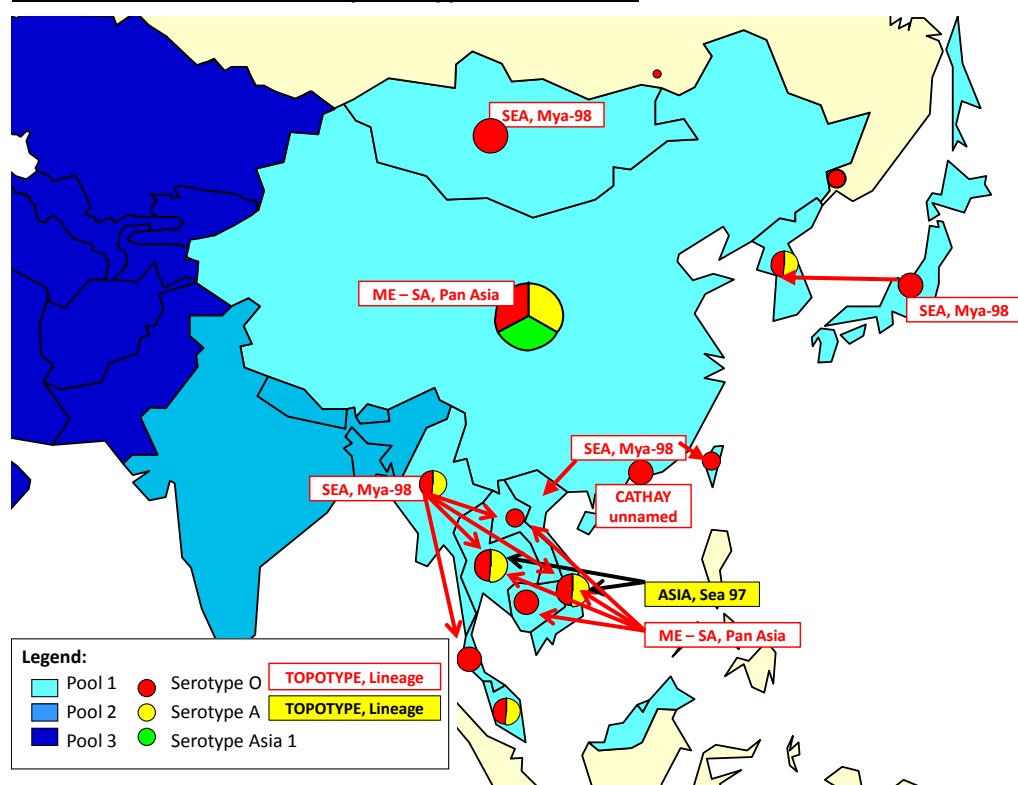
#### ***New events in Pool 2***

- **Sri Lanka<sup>12</sup>** – As reported by the Department of Animal Health and Production (DAPH), Sri Lanka, FMD vaccine has recommenced after a period of 18 years. The vaccine has been produced by the Animal Virus Laboratory, Polgolla at the Sri Lankan Veterinary Research Institute. By producing its own vaccine instead of importing vaccine from other countries Sri Lanka hopes to make considerable savings on the FMD immunisation programme.

#### ***Significant events in Pool 2 from previous months.***

- **India<sup>12</sup>** – The following viruses were detected in 2010 – O-India 2001, O – PanAsia-1 and 2 Branch C-II, Serotype A-VII non deletion and VP3 deleted, Asia 1 Lineage C (Indian nomenclature used).

#### ***FMD distribution in Pool 2 by Serotypes 2010 - 2012***



**Pool 3: WEST EURASIA & MIDDLE EAST**

Country	Data WRL FMD <sup>4</sup> 2011/2012	Data from field officers <sup>3</sup> 2011/2012	Reported serotype/outbreaks in OIE 2012 <sup>1*</sup>		Reported serotype/outbreaks in OIE 2011 <sup>1*</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks
Afghanistan	A, O, Asia 1				A, O, Asia 1	294
Armenia		No outbreaks 2012				Reported as Absent.
Azerbaijan		No outbreaks 2012				
Bahrain	A, O, Asia 1		(SAT 2)*	(1)*	?	33
Bulgaria	O				O	11
Egypt	A, O, SAT2	Epidemic	SAT 2	43		Reported as Absent.
Georgia		No outbreaks 2012				Reported as Absent.
Iran	O, A, Asia 1	O, A, Asia 1			O, A, Asia 1	2053 was 1304
Iraq					No Details submitted	
Israel	O		O	2	O	16
Jordan					Disease absent	
Kazakhstan	O,A		O A	8	O A	11
Kuwait	O				O	3
Kyrgyzstan	A	A**			A, O	66
Lebanon						Reported as Absent.
Libya	O		O, A, SAT 2	24	...*	...*
Oman					O	122
Pakistan	O, A, Asia 1				A, O, Asia 1	+..
Palestine Autonomous Territories	SAT 2		O SAT 2	2	A, O, Asia 1	1 26
Qatar					....	20
Saudi Arabia					+..*	+..*
Syrian Arab Republic					Reported as absent.	Reported as absent.
Tajikistan			Asia 1		ASIA 1	1
Turkey	O, A Asia1	O, A Asia1		O, ASIA 1	O, A Asia1	1045
Turkmenistan					No Details submitted	
Uzbekistan					No Details submitted	

( )\* - identified in the quarantine centre.

\*\* GLEWS

\* See Annex 1 at the end of this report for Legend for new codes used regarding OIE outbreaks in this and subsequent table.

### New events in Pool 3

- Kazakhstan<sup>4</sup> - WRL results for 7 samples submitted from 2010-2012 were all serotype O. Two O ME-SA PanAsia isolates from cattle were closely related to Vietnamese 2011 isolates.

Date Sample Taken.	Location	WRL Sequencing WRL Nomenclature	Next closest field isolates.
01/05/2010	Korday	O ME-SA PanAsia-2 KAZ10-AB	KAZ10-AB (KAZ10-AA, IRN06-56, KAZ07-AA, PAK06-10)
01/05/2011	Tinali	O ME-SA PanAsia-2 KAZ11-AB	KAZ11-AB (KAZ12-AA, KAZ12-AB, <b>IRN06-45, IRN06-56</b> )
01/08/2011	Kurchum	O ME-SA PanAsia KAZ11-AC*	KAZ11-AC (KAZ11-AA, KAZ11-AD, <b>VIT11-17*, VIT11-16</b> )
01/12/2011	Urdzhaz	O ME-SA PanAsia KAZ11-AD*	KAZ11-AD (KAZ11-AA, KAZ11-AC, <b>VIT11-17*, VIT11-16</b> )
01/02/2012	Akterek	O ME-SA PanAsia-2 KAZ12-AA	(KAZ12-AB, KAZ11-AB, PAK07-03, PAK07-53, KAZ10-AB) cattle
01/02/2011	Korday (Akterek)	O ME-SA PanAsia-2 KAZ12-AB	KAZ12-AA, KAZ11-AB, PAK07-03, PAK07-53, KAZ10-AB)
01/02/2012	Mainkum	A ASIA Iran-05 <sup>HER-10</sup> KAZ12-AC	KRG11-AA, AFG11-20, AFG11-22

\*Kazakhstan samples from Ruminants are all from ruminants, Viet Nam isolates from pigs

The map below illustrates locations of the WRL FMD Isolates for Kazakhstan 2010-2012



### ***New events in Pool 3 continued.***

Kyrgyzstan – One sample taken in November 2011 was A ASIA Iran-05<sup>HER-10</sup>

Date Sample Taken.	Location	WRL Sequencing WRL Nomenclature	Next closest field isolates.
November 2011	Unknown	A ASIA Iran-05 <sup>HER-10</sup> KRG11-AA	KAZ12-AC, AFG11-69, AFG11-71

The FAO is assisting Kyrgyzstan with their FMD control strategy until 2015.

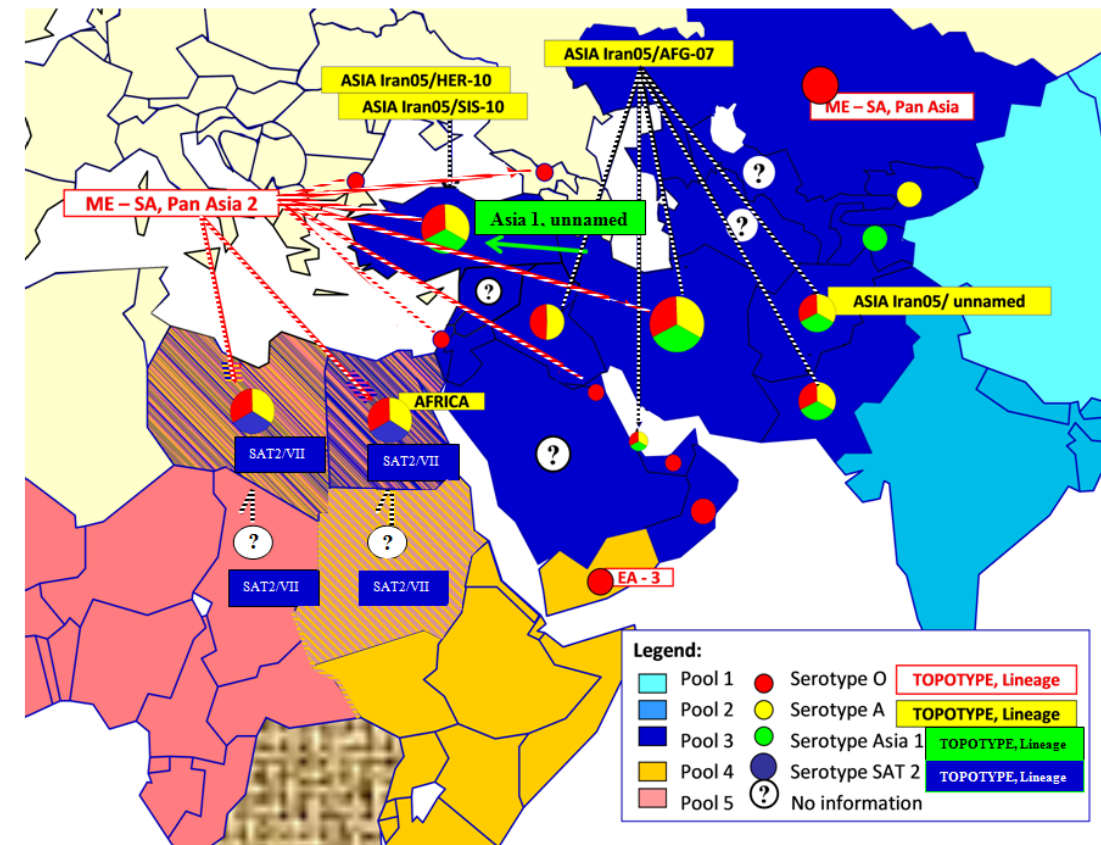
### ***Significant events in Pool 3 from previous months***

- **Egypt<sup>3</sup>** – 83 villages reported clinical FMD for the first time in May 2012, compared to 553 in April. This brings the number of **first time notifications** of FMD for this epidemic (started February 2012) to 3164.  
Emergency vaccination with monovalent SAT 2 commenced in April 2012 in those governorates with little or no reported FMD. According to central authorities for this reporting period 216,000 cattle, 66,000 buffaloes, 115,000 sheep and 11,000 goats have been vaccinated ie a total of 410,000 animals.  
Passive surveillance – five serotype SAT2, one serotype O and one serotype A have been detected in samples submitted to the lab in May 2012.  
Active surveillance – three serotype O outbreaks have been confirmed in May 2012.
- **Gaza, Israel, West Bank<sup>3</sup>** - A mission by Crisis Management Centre-Animal Health (CMC-AH) regarding the reporting of SAT 2 in the Gaza strip was conducted. There have been 2 reported outbreaks of FMD in Gaza – the second confirmed as serotype SAT 2. It is reported that the first round vaccination of large ruminants in Gaza for SAT2 has been completed - 15,000 cattle vaccinated.  
There have been no new outbreaks reported.
- **Libya<sup>3</sup>** – A surveillance and vaccination strategy is being promoted by the new CVO of Libya to enhance the knowledge of the distribution of FMD types in Libya and to reduce the spread and impact of FMD.
- **Kazakhstan<sup>1</sup>** – Serotype O has been reported in a new location – on 30/05/2012 a village, Borovoe, Borodulihinsky in East Kazakhstan, near the Russian border, reported clinical signs of FMD in 34 out of 250 cattle. 136 cattle have so far been notified as having been destroyed. The village also has 2300 sheep, which were not reported as showing clinical signs and 571 of these have been destroyed. There have been seven other outbreaks of FMD in Kazakhstan in 2012. These have been located closer to either China or Kyrgyzstan. Quarantine, movement control, zoning, vaccination and stamping out are reported to have been applied in response.

**Significant events in Pool 3 from previous months, continued.**

- **Pakistan**<sup>4</sup> – Serotype ASIA 1 Sindh<sup>-08</sup> and serotype A, topotype ASIA, lineages Iran-05<sup>Her-10</sup> have been detected in a sample collected from cattle in January 2012
- **Qatar**<sup>1</sup> – 20 outbreaks of FMD were reported to the OIE for the period June to December 2011. Serotype O has been confirmed.

**Pool 3. FMD distribution by Serotypes 2010 – 2012**



**Pool 4. EAST AFRICA**

Country	Data WRL FMD <sup>4</sup> 2011/2012	Data from field officers <sup>3</sup> /EARLN <sup>8</sup>	Reported serotype/outbreaks in OIE 2012 <sup>1*</sup>		Reported serotype/outbreaks in OIE 2011 <sup>1*</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks
Burundi		O A SAT1 SAT 2 <sup>8</sup>			No details submitted.	
Comoros					?	?
Congo D. R.	A(2011)	2012 - 2 districts.			O, A, SAT 1	3
Djibouti						Reported as Absent.
Egypt	O, A SAT 2	A, O SAT 2	SAT 2	49		Reported as Absent
Eritrea					No details submitted.	
Ethiopia	O	O, A SAT1 <sup>8</sup>			A, SAT 1, SAT 2, O	15
Kenya	O	O, SAT 1, SAT 2 <sup>8</sup>			O, SAT 1 SAT 2	60
Libya	O		O, A, SAT 2	37	No details submitted.	
Rwanda		Reported as absent <sup>8</sup>			No details submitted.	
Somalia		No data available <sup>8</sup>			?	39
North Sudan		No confirmed outbreaks 2012			?	9
South Sudan		O, A SAT 1 C**, SAT 2				
Tanzania	SAT 2	SAT 1 in buffalo SAT 2 in cattle			SAT 2 SAT 3	14
Uganda		O <sup>3</sup> A <sup>8</sup> SAT 1 SAT 2 SAT 3			O	15
Yemen					No details submitted.	

#### ***New events in Pool 4***

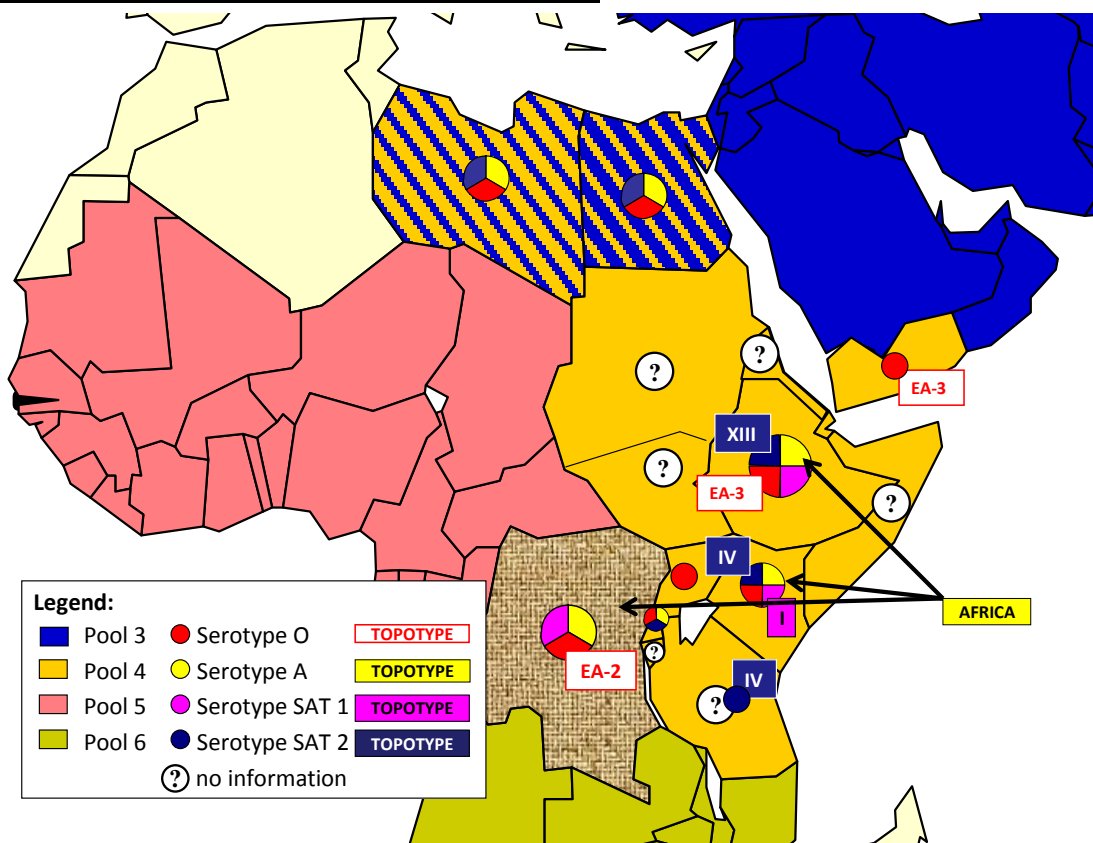
- **Democratic Republic of Congo<sup>8</sup>** - The Veterinary Laboratory in Goma, DRC reports that FMD is spreading rapidly in the East of the country – areas affected are in North and South Kivu and include the following: Butue, Beni, Mangurujipa, Lubero, Ishango (Shango), Kyavinyonge, Kasindi and Mutwanga.  
The serotypes are currently unknown, but results of seven samples taken in the locality of the latest outbreaks in 2011 were all serotype A, topotype Africa, lineage G-1. The most similar isolates outside of Congo are viruses detected in Kenya and Tanzania. In 2010 serotype O, topotype EA-2 was reported in a similar location (all WRL typing).  
Farmers isolate infected animals, treat them with antibiotics and disinfect using sodium carbonate. Where farmers have the means they use tri or quadrivalent vaccines from Kenya (Sat 1, SAT 2, A and O serotypes).
- **Ethiopia<sup>8</sup>** – FMD outbreak has been reported in the Amhara region, in the central part of northern Ethiopia – the epidemiological unit affected consists of 2000 cattle which share grazing.
- **Rwanda<sup>3</sup>** – has reported that it does not have FMD, despite outbreaks close to its borders.
- **Uganda<sup>8</sup>** – In addition to the two outbreaks reported in the May 2012 report there have been five more outbreaks in April and March 2012 – two in Northern Region, two in Eastern Region and one in the north part of Central Region, 20km south of Lake Kyoga.

#### ***Significant events in Pool 4 from previous months***

- **Democratic Republic of Congo<sup>8</sup>** - The Veterinary Laboratory in Goma, DRC reports two outbreaks of FMD in May 2012 in the east of the country.
- **Ethiopia<sup>8</sup>** - The National Animal Health Diagnostic and Investigation Center (NAHDIC) reports outbreaks in the following regions:  
*Amhara* - South Wollo Zone (central North Ethiopia).  
*Amhara* – in six zones towards the Sudan border.  
*Tigray* - March and April 2012 in two zones towards the Eritrean border (East Zone and Southern Zone).
- **Uganda<sup>8</sup>** - National Animal Disease Diagnostics and Epidemiology Centre (NADDEC) Ministry of Agriculture Animal Industry and Fisheries (MAAIF) Entebbe, Uganda has reported on two outbreaks of FMD which have been confirmed on serology by NADDEC:  
*Nwoya District* – 31 May 2012 (towards Lake Albert) 100km from DRC and near the Murchison Falls National Park.  
*Kween District* – February 2012 (20km from Kenyan border) – zero grazed and free range cattle with access to drink from the streams flowing from Mount Elgon.  
There are unconfirmed reports of FMD in large and small ruminants in the northeast of the country, but veterinary teams have not been able to get to the area because of floods and inaccessibility.

- **Eritrea**<sup>8</sup> - severe epidemic of FMD in 2011.
- **Ethiopia**<sup>8</sup> - It is reported that there were 58 outbreaks of FMD in 2011.
- **Kenya**<sup>6</sup> - Serotype O in the Rift Valley (Nakuru, Laikipia, Koibatek, Keiyo) and Eastern (Mukaa) in January 2012. Serotype O continued into Central province (Nyeri) in March 2012 and was reported in Naivasha in April 2012.  
Serotype SAT 2 in Rift Valley (Nakuru, Nyandarua, Nakuru, in autumn 2011 and continuation into 2012 (Naivasha)<sup>6</sup>
- **South Sudan** – 3,228 samples collected, 1,183 positive for FMD. Positives sent to Embakasi for serotyping – serotypes SAT 1, SAT 2, O, and A confirmed, with serotypes SAT 2 and O being most prevalent and SAT 1 and A next prevalent.
- **Tanzania**<sup>4</sup>: SAT 2, topotype IV in cattle.

**Pool 4: FMD distribution by Serotypes 2010 – 2012**



**Pool 5. WEST AFRICA**

Country	Data RESOLAB 2011/2012	Serotypes reported from RESOLAB 2011/12	Reported serotype/outbreaks in OIE 2012 <sup>1*</sup>		Reported serotype/outbreaks in OIE 2011 <sup>1*</sup>	
			Sero type	Nb of outbreaks	Serotype	No of outbreaks
Benin		A SAT 1 O SAT 2			A,O, SAT 1, SAT 2	59
Burkina Faso		A, O SAT 2			?	161
Cameroon	11 outbreaks 2012	A O SAT 2			?	35
Cape Verde						No details submitted.
Central Afr. Rep.						No details submitted.
Chad		A, SAT 1				No details submitted.
Congo D. R.	O,A	A, SAT 1			O,A, SAT 1	3
Congo R.					...	...
Cote d'Ivoire		A, O SAT2			SAT 1, A	13
Equatorial Guinea						Disease suspected but not confirmed.
Gabon						Reported as absent.
Gambia	One outbreak	A O SAT 2				No details submitted.
Ghana	43 samples ELISA positive	A O SAT 1 SAT 2			?	57
Guinea Biss.						Reported as absent.
Guinea						...
Liberia		A, SAT 2				No details submitted.
Mali		A,SAT 1 O, SAT2			?	3
Mauritania					...	...
Niger	13 Outbreaks awaiting serotyping	A,O,SAT 1 SAT 2			?	45
Nigeria		A, SAT1,O			?	15
Sao Tome Principe						No details submitted.
Senegal		A,O,SAT 2			?	12
Sierra Leone						Reported as absent.
Togo	One outbreak 2012	O,SAT 1			O, SAT 1	79

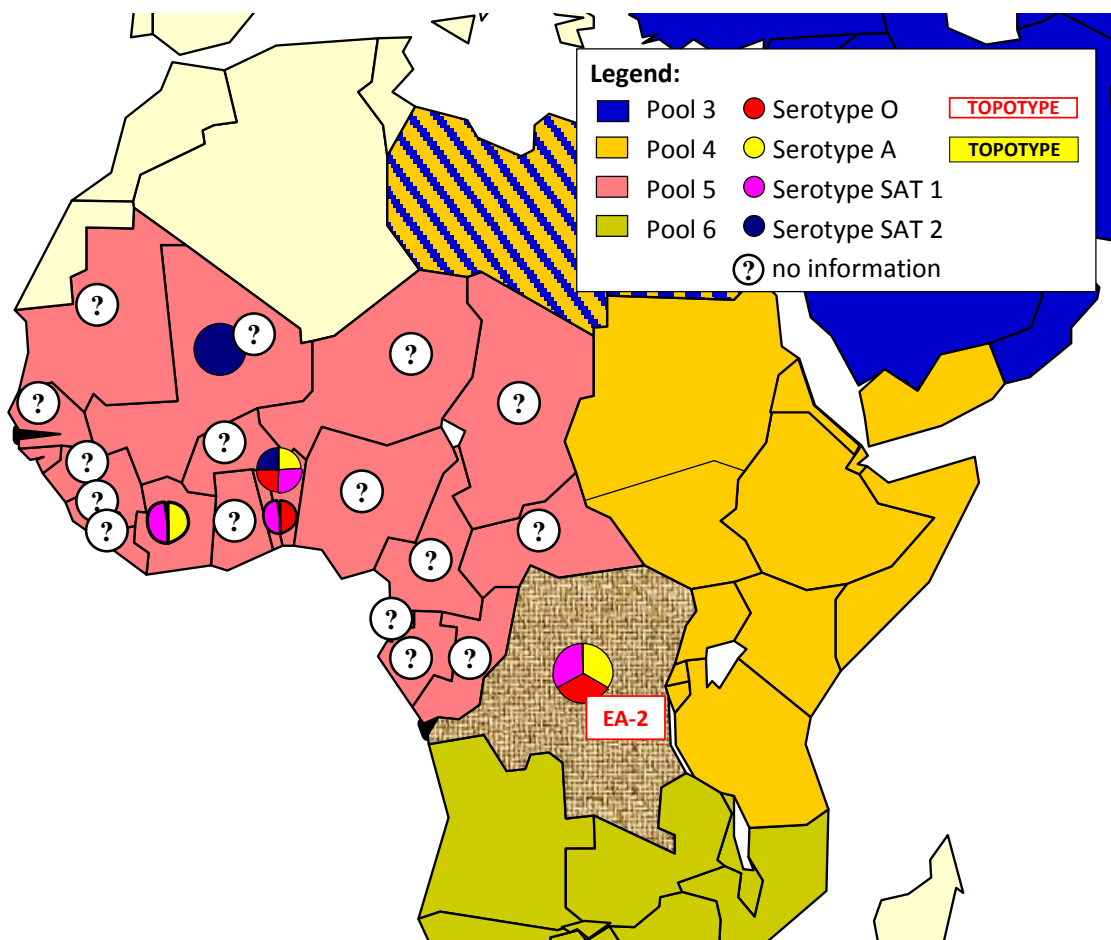
***New or significant events in Pool 5 .***

None reported for this reporting period.

***Events in Pool 5 from previous months.***

- **Benin<sup>1</sup>** – reported 22 outbreaks in the second half of 2011 bringing the total outbreaks of FMD reported to the OIE in 2011 to 59.
- **Burkina Faso<sup>1</sup>** – additional reporting to the OIE brings the total number of outbreaks for 2011 to 161.
- **Cameroon<sup>5</sup>**: 11 outbreaks reported for the first three months of 2012; samples to be sent for analysis.
- **Nigeria<sup>1</sup>** – Total outbreaks reported to OIE for 2011 is 15.
- **Niger<sup>1</sup>** - Total outbreaks reported to OIE for 2011 is 45.
- **The Gambia<sup>5</sup>**: Outbreaks in the North bank, Central river and Western regions; samples sent for analysis.
- **Togo<sup>5</sup>**: one outbreak at Adetikope (Adodovi) on 21 February 2012.

**Pool 5. FMD distribution by Serotypes 2010 - 2012**



**Pool 6. SOUTHERN AFRICA**

Country	Data WRL FMD <sup>4</sup> 2011 - 2012	Data from field officers <sup>3</sup> 2011 - 2012	Reported serotype/outbreaks in OIE 2012		Reported serotype/outbreaks in OIE 2011	
			Serotype	No of outbreaks	Serotype	Nb of outbreaks
Angola					SAT 2	?
Botswana	SAT 2		SAT 2	1	SAT 2	4
Congo D. R.	A	A, C SAT 1			O, A, SAT 1	3
Malawi					SAT 2	2
Mozambique				None	SAT 2	2
Namibia			SAT 1	1	SAT 1	4
South Africa			SAT 2	1	SAT 1	46
Zambia			...	...	...	....
Zimbabwe					SAT 2	10

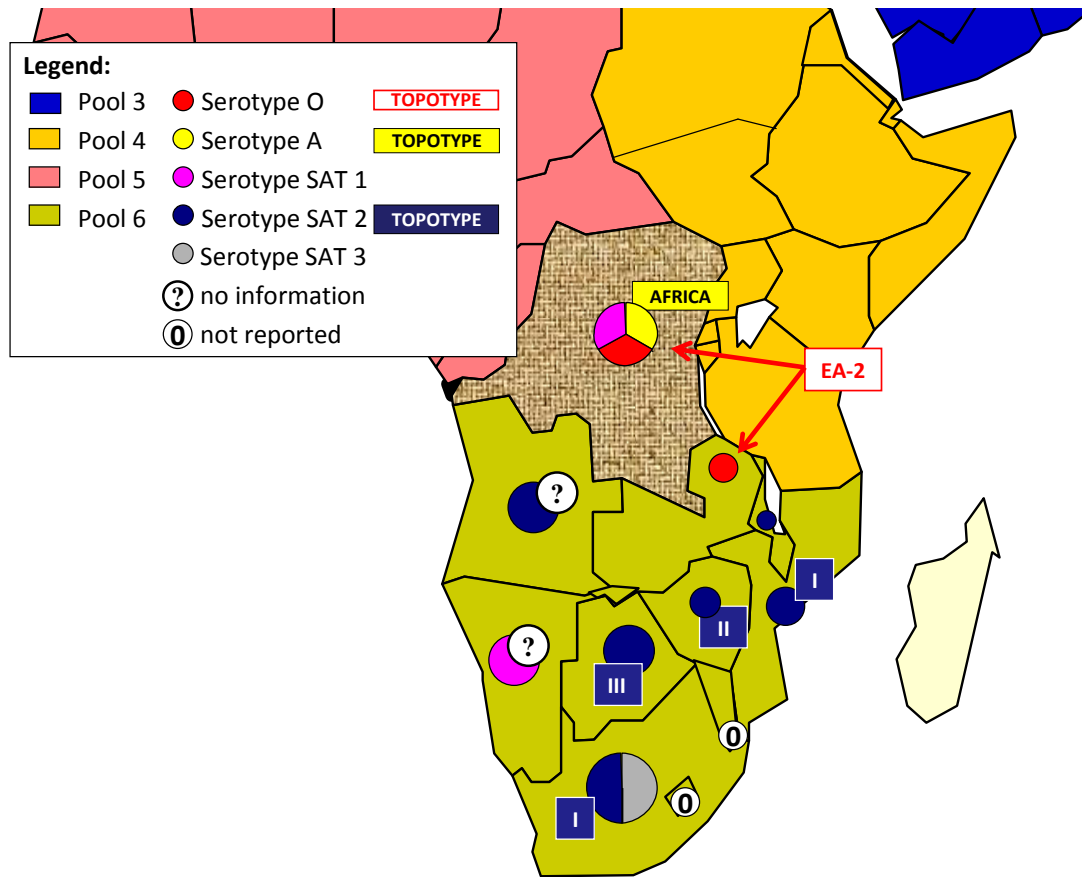
**New events in Pool 6**

- No new events have been reported for this reporting period.

**Significant events in Pool 6 from previous months**

- **Botswana<sup>1</sup>**: Recurrence of SAT 2 in Matsebe Crush, Ngami, Ngamiland, Zone 2, Sub zone 2d on 23/05/2012. The last detection of FMD in this zone was in September 2011. Zone 2 is subject to vaccination every four months with tri-valent (SAT1, SAT2, SAT3) vaccination

**Pool 6. FMD distribution by Serotypes 2010 – 2012**



## **Pool 7. SOUTH AMERICA**

Country	Data WRL FMD <sup>4</sup> 2011 - 2012	Data from field officers <sup>3</sup> 2011 - 2012	Reported serotype/outbreaks in OIE 2012		Reported serotype/outbreaks in OIE 2011	
			Serotype	No of outbreaks	Serotype	No of outbreaks
Ecuador					O	5
Paraguay					O	2
Venezuela					O,A	

### ***New Events in Pool 7***

#### ***Significant events in Pool 7 from previous months***

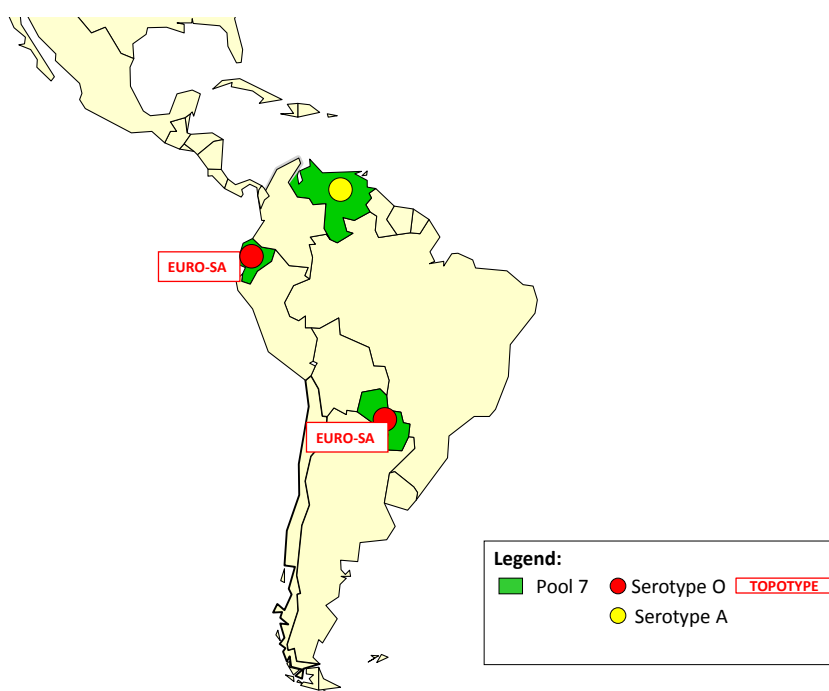
- **Paraguay<sup>1</sup>**: No further cases have been reported for this reporting period. On 30/12/2011, in San Pedro, out of a total of 131 mixed age cattle, 15 cattle, under 24 months old, showed clinical signs compatible FMD. The farm is located at about 15 kilometres from the previous outbreak (detected in San Pedro in September 2011; confirmed as Serotype O, topotype EURO-SA<sup>4</sup>) in the emergency zone established at that time; during surveillance, illegal introduction of 23 animals of unknown origin was identified, the farmer could not justify the origin of these animals. Serotype O was confirmed.

#### ***Comments from OIE/FAO FMD Conference Bangkok, June 2012.***

Recent important events 2011-2012 in South America<sup>12</sup>

- 9 outbreaks of FMD were notified: 8 virus O (5 Ecuador, 2 Paraguay, 1 Venezuela) and 1 virus A (Venezuela)
- Bolivia had 5 years without FMD outbreaks (last outbreak February 2007) and received the OIE recognition of free without vaccination for the Region del Altiplano
- Brazil started epidemiological studies for the recognition of a free zone with vaccination in the states of its north east Region
- Peru has requested the OIE recognition of free without vaccination for the remaining part of its territory
- Ecuador and Venezuela maintain FMD virus circulation.

### **Pool 7. FMD distribution by Serotypes 2010 – 2012**



### **References**

1. WAHID Interface – OIE World Animal Health Information Database  
<http://web.oie.int/wahis/public.php?page=home>
2. Global Early Warning System (EMPRES/GLEWS) reports <http://empres-i.fao.org/empres-i/home> ; National Authorities, 10/11/2011, <http://www.gov.kg/?p=4716>
3. Reports from FAO/EuFMD projects and field officers
4. World reference laboratory for Foot and mouth disease (WRLFMD), [www.wrlfmd.org](http://www.wrlfmd.org)
5. RESOLAB-FMD West Africa (FAO/EuFMD supported FMD network).
6. Nakuru Real-Time Training courses (NTC) on Foot-and-Mouth Disease reports
7. Subramaniam, S., Mohapatra J. K., Sanyal, A., Rout, T., Prasad, G., & Pattniak, B., Molecular epidemiology of Foot-and-mouth Disease in India, *FAO-ICR International conference, Scientific developments and technical challenges in the progressive control of Foot-and-mouth Disease in South Asia*, 13-15 February 2012, New Delhi, India
8. East African-FMD Laboratory Regional Network.
9. Project Directorate on Foot and Mouth Disease, India
10. SENASA
11. Scientific developments and technical challenges in the progressive control of FMD in South Asia, New Dehli, India, 13-15 February 2012.
12. 2<sup>nd</sup> Global FAO/OIE conference on FMD, 27-29 June 2012, Bangkok.

### **Annex 1 ( Legend for OIE codes used in tables for each virus pool).**

- +.. Disease present but without quantitative data
- + Disease present with quantitative data but with an unknown number of outbreaks
- ... No information available for this disease