

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

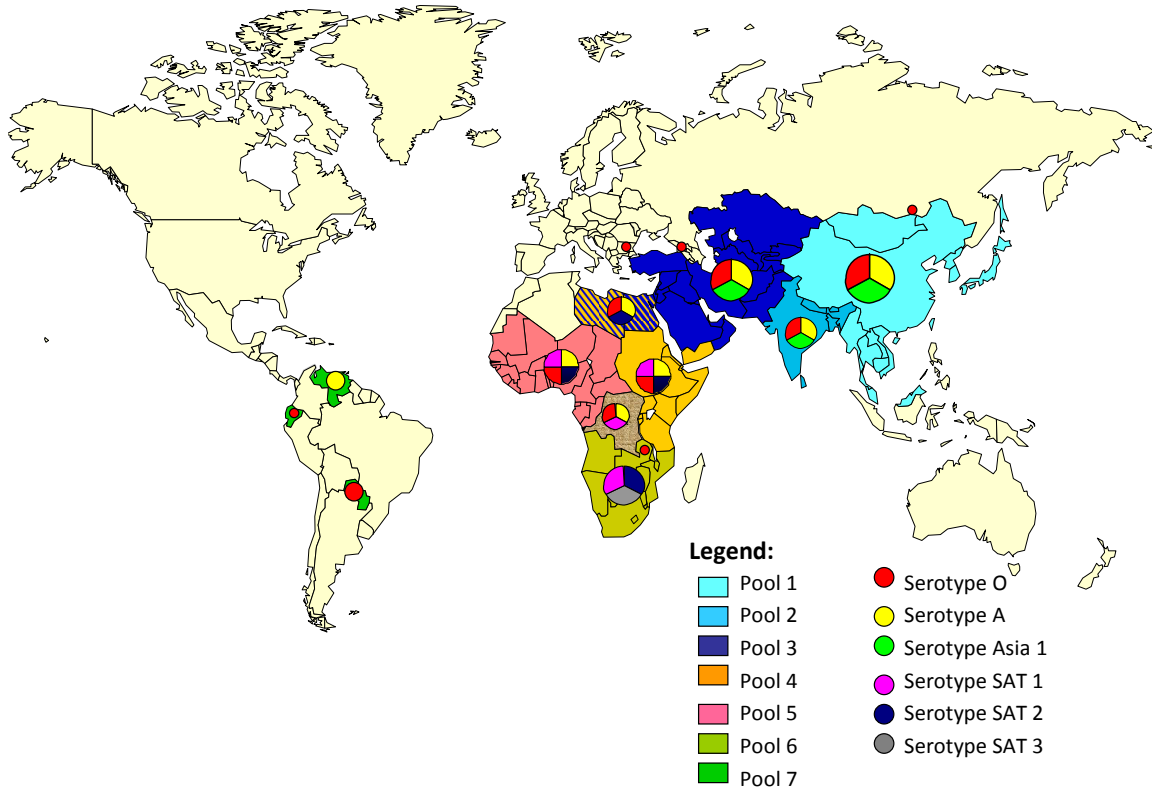
FAO/EuFMD supported FMD networks (EARLN-FMD Eastern Africa, RESOLAB-FMD West Africa)

FAO/EuFMD projects and field officers

Crisis Management Centre-Animal Health (CMC-AH)

*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 distribution by serotype and the seven virus pools, 2010-2012



### HEADLINE NEWS

#### Pool 1:

- serotype O outbreaks in pigs in China (Taiwan Province)<sup>1</sup>
- serotype O outbreak in cattle in China (Mainland)<sup>1</sup>

#### Pool 3:

- serotype O and A outbreaks in cattle, sheep and goats in Libya<sup>1</sup>
- serotype Asia 1 epidemic in West Eurasia, outbreaks in Turkey<sup>3</sup>

#### Between pools 3 and 4:

- serotype SAT 2 outbreaks cattle in Egypt and Libya<sup>1</sup>

#### Pool 4:

- serotype O and SAT 2 outbreaks in cattle in Kenya<sup>6</sup>

#### 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 SAT2 serotypes in North Africa and by the Eastern Africa FMD Laboratory Network Meeting in Nairobi.

#### Pool 6:

- serotype SAT 2 outbreaks in cattle in South Africa<sup>1</sup>

**Pool 1. CENTRAL / EAST ASIA**

Country	Data WRL FMD <sup>4</sup> 2011	Data from field officers <sup>3</sup> 2011	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Cambodia	O				?	88	?, O	138
China (People's Rep. of)		Asia 1?			O	6	O, A	20
China (Hong Kong, SAR)	O				not reported		O	4
China (Taiwan Province)			O	4	O	9	O	4
Japan					not reported		O	292
Korea (DPR)	O				report missing		report missing	
Korea (Rep. of)	O				O	155	O, A	89
Lao PDR	O				report missing		O	1
Malaysia	O				O, A	28	O, A	51
Mongolia					O	1	O	9
Myanmar					report missing		O, A, ?	10
Russia					O	1	O	2
Thailand					O, A	15	O, A	35
Viet Nam	O, A				?, O	476	O, A, ?	280

Note: Molecular evidence indicates Asia 1 circulates for long periods in Southeast Asia/China with gaps between reporting/isolation, with big epidemics seen less frequently than for O and A. Absence from reports does not equal evidence of absence.

*There are three topotypes (meaning very distantly related, at least 15% apart = separation of 10's of years) of serotype O circulating in Southeast Asia (SEA) and China (Pool 1): **Cathay; SEA, MYA-98; and ME-SA, Pan Asia**. The Cathay topotype seems to be unique to China (Hong Kong, SAR). The MYA-98 topotype was responsible for the FMD explosive outbreaks in the Republic of Korea and the Democratic People's Republic of Korea, as well as in Japan in 2010. The Pan Asia topotype is an overspill from South Asia occurring around the mid-1990s, the others are unique (hence the concept of a virus pool, where viruses evolve mostly independently of other regions). Each sequence report needs to be reviewed to follow these topotypes. The FMDV in China (Taiwan Province) has apparently evolved from the Pan Asia topotype over about 12 years, independently. So, there are some disease islands and some epidemics which are more transboundary in nature, all in one region. [FAO officer, 20/10/2011]<sup>4</sup> Commentary on the three endemic serotypes (O, A, and Asia 1) for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))<sup>5</sup>*

**New events**

- serotype O outbreaks in pigs in China (Taiwan Province)<sup>1</sup>
- serotype O outbreak in cattle in China (Mainland)<sup>1</sup>

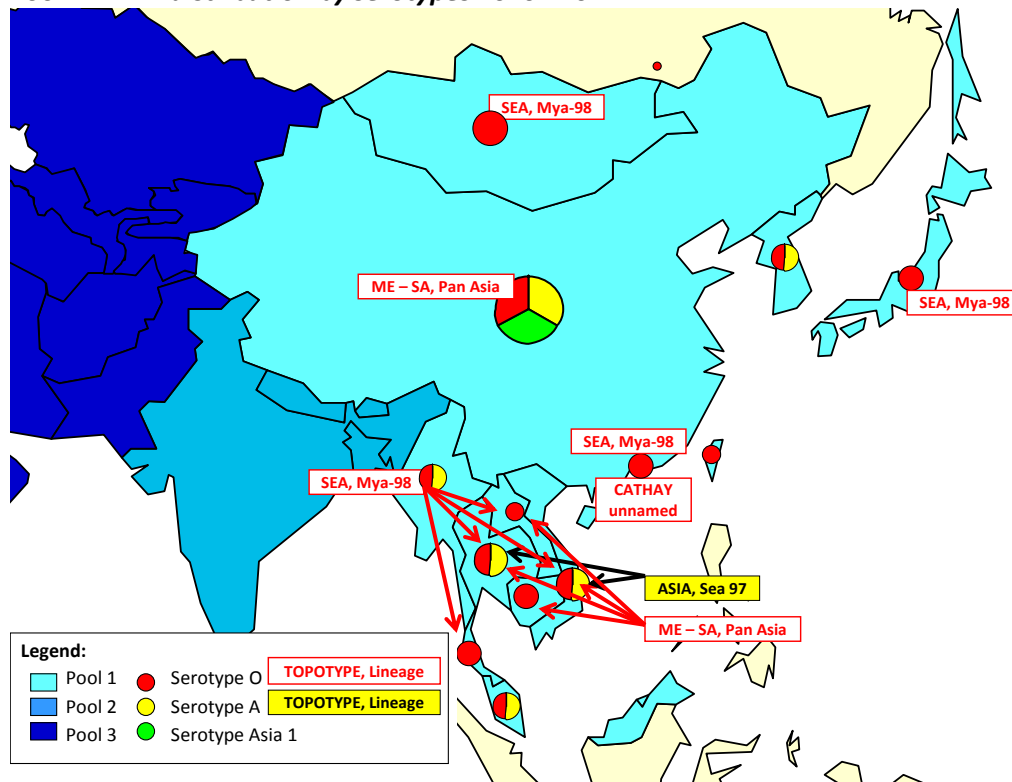
**Significant events from previous months**

- serotype O outbreaks in pigs in China (Taiwan Province)<sup>1</sup>

**Continuing events from previous months<sup>1</sup> (OIE status)**

Country	Start of event	Outbreaks: Serotype	Date of previous occurrence
China (Taiwan Province)	19/12/2011	O	08/08/2011
Korea (Republic of)	26/11/2010	O	19/06/2010

**Pool 1. FMD distribution by serotypes 2010 - 2012**



**Comments for results available (WRL)<sup>4</sup> in 2011**

**Cambodia:**

Date received: 28/07/2011

No. of samples: 4; O: 2; Topotype: ME-SA, Pan Asia

**China:** FMDV serotype O outbreak reported to have occurred on 29/03/2011 in Jing Xiang Village, Tianzhu, Qian Dongnan, Guizhou. VP1 sequence data provided by the Lanzhou Veterinary Research Institute (and submitted to GenBank – accession number JF837375) showed the virus to belong to the ME-SA/Pan Asia lineage and to be closely related to recent viruses from Viet Nam.

Three further outbreaks of FMD type O have been reported: on 13/07/2011 at Longfeng Village, Pudi, Bijie, Guizhou in cattle/sheep/goats/pigs; on 31/08/2011 at Liebugou, Lengda Village, Jiacha, Shannan, Tibet in cattle; and on 30/09/2011 at Duixu Village, Zhongda Town, Lang, Linzhi, Tibet in cattle. No sequence data has been reported.

**Hong Kong SAR, P.R. China:**

Date received: 07/12/2011; No. of samples: 2; O: 2 Topotype: CATHAY, unnamed.

Date received: 15/09/2011; No. of samples: 5; O: 5; Topotype: CATHAY, unnamed.

*Lao People's Democratic Republic:*

Date received: 28/07/2011; No. of samples: 4;

O: 1 Topotype: SEA, Mya-98

O: 3 Topotype: ME-SA, Pan Asia

*Malaysia*

Date received: 09/12/2011; No. of samples: 29

O: 1 Topotype: SEA, Mya-98

A: 6 Topotype: ASIA, Sea-97

*Thailand:*

Date received: 28/07/2011; No. of samples: 17

O: 1; Topotype: ME-SA, Pan Asia

O: 5; Topotype: SEA, Mya-98

A: 11; Topotype: ASIA, Sea-97

*Taiwan Province of China (POC):*

Three outbreaks were detected by serology on 06/05/2011 (Xinpu Township, Hsin-chu), 16/05/2011 (Yongjing Township, Chang-hua) and 23/05/2011 (Tianwei Township, Chang-hua), all in pigs. No viruses were isolated. Two new outbreaks of FMD type O were detected by serology on 11/07/2011 (Yingge District, T'ai-pei) and 26/07/2011 (Shigang District, T'ai-nan); both were in pigs. No viruses were detected.

*Viet Nam:*

Date received: 28/07/2011; No. of samples: 7

O: 1; Topotype: SEA, Mya-98

O: 5; Topotype: ME-SA, Pan Asia

A: 1; Topotype: ASIA, Sea-97

**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 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Bangladesh					?	?	not reported	
Bhutan					?	4	?	5
India		O, A, Asia 1			?, O, Asia 1	439	O, A, Asia 1	422
Nepal					O, Asia 1	48	O	22
Sri Lanka	O				O	5	O	18

Commentary on the three endemic serotypes (O, A, and Asia 1) for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org)).

The following comes from the FAO reference Centre for SAARC countries (PD-FMD, India). [Note that it is difficult to compare type A and Asia 1 nomenclature to those used in other regions as this Reference centre uses its own terminology.]

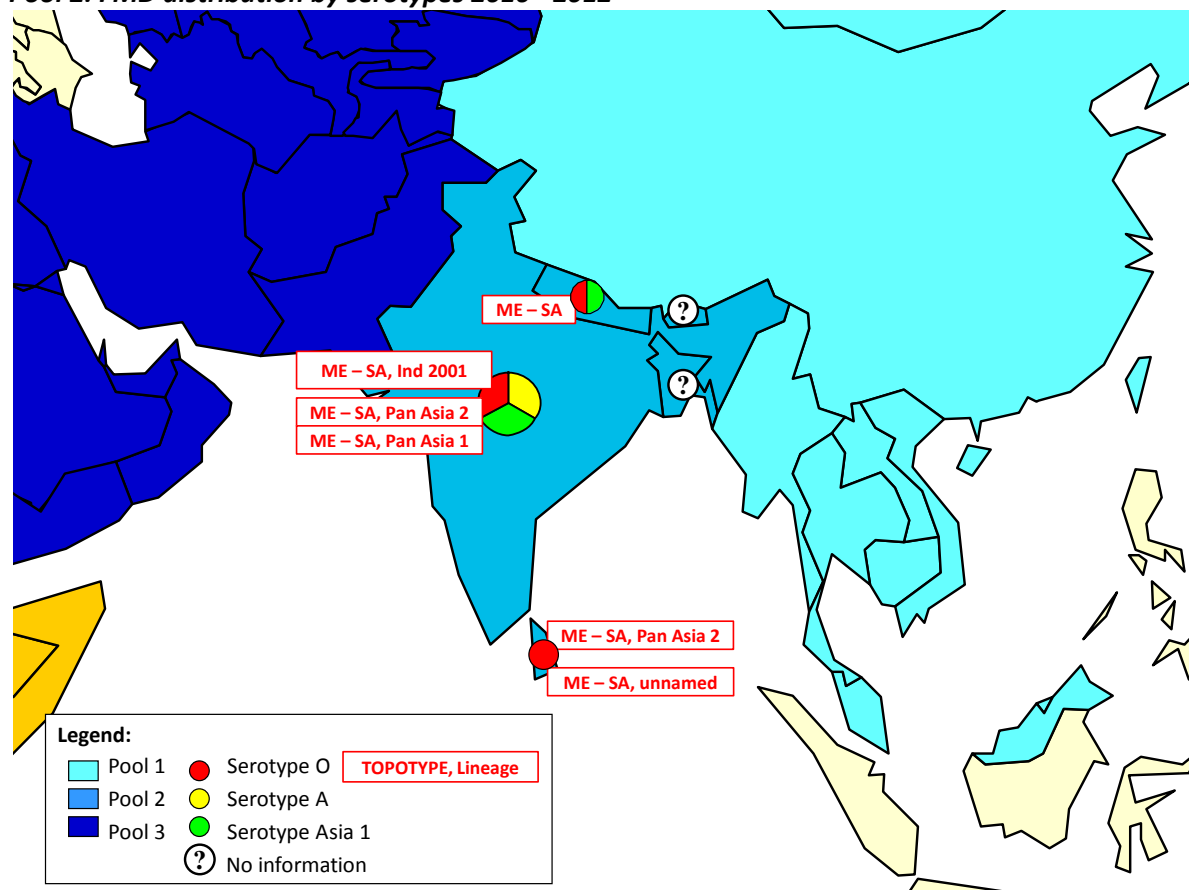
In India three serotypes have been recorded in 2010-2011. Serotype O is the dominating one followed by serotypes Asia 1 and A. Emergence and re-emergence was observed in serotypes O and Asia 1 as part of their evolutionary process. Re-emergence was not observed in case of serotype A where it seems that, as the new sub-genotypes or genotypes appear the old ones disappear, a phenomenon that has been termed as “lineage turnover”. In case of serotype O, different lineages co-circulate at the same period. During the last five years, epidemiological scenario in serotype O has been largely influenced by Pan Asia and Ind 2001 strains in India. In 2010-2011, lineage Ind 2001 dominated as outbreaks were recorded in 10 out of 12 states where disease due to serotype O occurred. Pan Asia II was responsible for the disease in West Bengal, Arunachal Pradesh and Maharashtra. Pan Asia I case in cattle occurred in Punjab. In Asia 1 exclusive dominance of particular lineage (“Lineage C”) was observed. In serotype A, the phenomenon of co-circulation followed by genotype turnover was observed. Only “Genotype 18” type A viruses have been found in India since 2001, with cycles of FMDV belonging to one unique lineage (VP3<sup>59</sup>-deletion group) and non-deletion lineages. In 2010-11, the deletion lineages predominated in the epidemic spread. Emergence and re-emergence of lineages not always resulted in antigenic deviation to large extent in serotypes O and Asia 1 but resulted in significant antigenic divergence in serotype A necessitating change of the vaccine strain<sup>7</sup>.

**New events**

**Significant events from previous months**

**Continuing events from previous months<sup>1</sup> (OIE status)**

**Pool 2. FMD distribution by serotypes 2010 - 2012**



**Comments for results available (WRL)<sup>5</sup> in 2011**

Sri Lanka: Date received: 28/07/2011; No. of samples: 2

O: 1 (2010); Topotype: ME-SA, unnamed; O: 1 (2011); Topotype: ME-SA, Pan Asia-2

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

Country	Data WRL FMD <sup>4</sup> 2011	Data from field officers <sup>3</sup> 2011 & 2012	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Afghanistan	A, O, Asia 1				A, O, Asia 1	219	?	333
Bahrain	A, O, Asia 1				?	10	?	4
Bulgaria	O				O	11	not reported	
Egypt			SAT 2	8	not reported		O, A	7
Georgia	O				not reported		not reported	
Iran	O, A, Asia 1	O, A, Asia 1			O, Asia 1, A	1304	O, Asia 1, A	4846
Iraq					report missing		A, O	104
Israel	O				O	16	not reported	
Jordan					report missing		not reported	
Kazakhstan					O	3	O	1
Kuwait	O				O	1	not reported	
Kyrgyzstan					report missing		report missing	
Lebanon					not reported		?	Yes
Libya	O		O, A, SAT 2	14	report missing		O	2
Oman					O	122	O	122
Pakistan	O, A, Asia 1				A, O, Asia 1		report missing	
Qatar					?		?	yes
Saudi Arabia					?		?	yes
Syrian Arab Republic					not reported		not reported	
Tajikistan			Asia 1		not reported		not reported	
Turkey	O, A, Asia 1	O, A, Asia 1			O, A, Asia 1	1045	A, O	1626
Turkmenistan					report missing		report missing	
United Arab Emirates					not reported		not reported	
Uzbekistan					report missing		report missing	

Commentary on the three endemic serotypes (O, A, and Asia 1) for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))

Serotype O, Pan Asia-2ANT-10 lineage was confirmed by WRLFMD in samples collected in Libya in Jan 2012 from cattle and sheep<sup>3</sup>. The genotyping shows close relation with previously isolated in Libya viruses.

**New events**

- serotype O and A outbreaks in cattle, sheep and goats in Libya<sup>1</sup>
- serotype SAT 2 outbreaks cattle in Egypt and Libya<sup>1</sup>

**Significant events from previous months**

- serotype Asia 1 in cattle and goats in Tajikistan<sup>1</sup>
- serotype A in cattle (A-Iran-5) in Kyrgyzstan<sup>2</sup>
- serotype Asia 1 epidemic in Turkey<sup>3</sup>
- 17 serotype A and 49 serotype Asia 1 outbreaks in January 2012 in Turkey<sup>3</sup>;

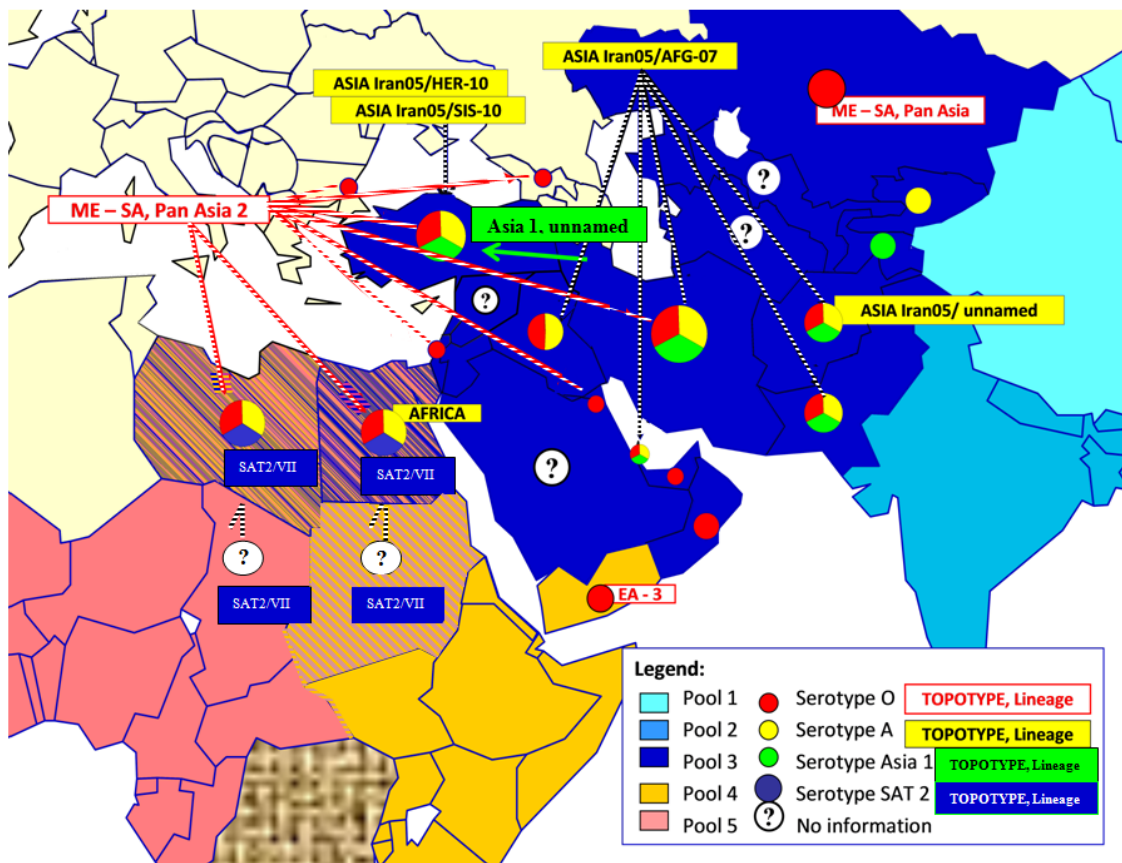
**Turkey**

After nine years, a new incursion by Asia 1 (Sub lineage Asia 1 AFG-07) occurred in 2011. Three different introductions from outside of the country were determined due to the Asia 1 serotype. The only introduction detected in Ardahan province has spread in other areas and caused more than 200 outbreaks through the end of Jan 2012<sup>3</sup>.

**Continuing events from previous months<sup>1</sup> (OIE status)**

Country	Start of event	Outbreaks: Serotype	Date of previous occurrence
Kazakhstan	11/08/2011	O	26/07/2011

**Pool 3. FMD distribution by serotypes 2010 - 2012**



### **Comments for results available (WRL)<sup>4</sup> in 2011**

#### *Afghanistan and Pakistan*

The O/ME-SA/PanAsia-2ANT-10 and A-Iran-05AFG-07 lineages continue to dominate in these countries. A new, as yet unnamed, A-Iran-05 lineage was found in Afghanistan.

#### *Bahrain*

Date received: 03/11/2011; No. of samples: 4

O: 2 Topotype: ME-SA Lineage: PanAsia-2ANT-10

A: 1 Topotype: ASIA Lineage: Iran-05HER.

#### *Israel*

Following 12 outbreaks of FMD type O in the Hazafon/Haifa and Hadarom areas between April and June 2011, six further outbreaks were reported in the Hazafon area at Shamir, Tsefat (24/06/2011), Shirion Junction, Golan (30/06/2011), Orcha Junction, Golan (18/07/2011), Devora, Yizreel (10/07/2011), Dalton, Tsefat (10/07/2011) and Mi'elya, Acco (26/07/2011). All outbreaks involved only cattle. Viruses isolated at the WRLFMD all belonged to the ME-SA topotype, PanAsia-2ANT-10 lineage.

#### *Kazakhstan*

An outbreak of FMD O occurred in cattle on the 11/08/2011 at Karashilik, Kurchumskiy, East Kazakhstan. A sample was submitted to the FGI-ARRIAH and the VP1 sequence provided to the WRLFMD. Phylogenetic analysis showed the sequence to belong to the ME-SA topotype, PanAsia lineage and was closely related to sequences obtained from viruses occurring in Viet Nam and P.R. China (Guizhou province).

#### *Kuwait*

2 samples received on 18/07/2011. Phylogenetic analysis showed the sequence to belong to type O, ME-SA, Pan Asia-2ANT-10.

#### *Libya*

Serotype O, Pan Asia-2ANT-10 lineage confirmed in of samples collected from cattle and sheep in Jan 2012.

#### *South Ossetia / Tskhinvali Region Georgia (disputed)*

An outbreak of FMD type O occurred in cattle on 05/08/2011. Laboratory diagnosis took place at the FGI-ARRIAH and the VP1 sequence was provided to the WRLFMD. The virus belonged to the ME-SA topotype, PanAsia-2ANT-10 lineage.

#### *Turkey*

The WRLFMD reported on 17 October 2011, FMD results for 38 samples taken from cattle submitted from Turkey: serotype O (3); serotype A (17); both serotype O and A in one sample; serotype Asia 1 (3); and 14 samples with no virus detected.

Date received: 29/09/2011

No. of samples: 38

O: 3; Topotype: ME-SA; Lineage: PanAsia-2ANT-10

A: 17; Topotype: ASIA; Lineage: Iran-05HER-10

(Note: the viruses now designated as Iran-05HER-10 and Iran-05SIS-10 were previously classified as Iran-05AFG-07)

A+O: 1 (only the type O component could be amplified by RT-PCR)

Asia 1: 3

FMDV-GD: 14

Note: FMDV serotype Asia 1 was detected in Pakistan (December 2010 in Bahawalpur, Punjab and December 2010/January 2011 in Karachi, Sindh). These viruses are closely related to previous viruses isolated from Sindh in 2008-2009. Subsequently, closely related Asia 1 viruses were detected in Bahrain (February 2011).

Asia 1 epidemics periodically spread from the Indian sub-continent across the Middle East entering Turkey, and on two occasions (1984 and 2000), even Greece. These epidemics have been recorded in 1973-1974, 1983-1984 and 1999-2000.

[WRLFMD, 2011, [http://www.wrlfmd.org/fmd\\_alerts/asia\\_1\\_2011.htm](http://www.wrlfmd.org/fmd_alerts/asia_1_2011.htm)]

#### Pool 4. EAST AFRICA

Country	Data WRL FMD <sup>4</sup> 2011	Data from field officers <sup>3</sup> & NTC <sup>6</sup> 2011 & 2012	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Burundi					report missing		report missing	
Comoros					report missing		?	2
Congo D. R.	O, A				A, C*, SAT 1	2	not reported	
Djibouti					not reported		not reported	
Egypt			SAT 2	8	not reported		O, A	7
Eritrea					report missing		not reported	
Ethiopia					A, SAT 1, SAT 2, O	15	A, O, SAT 1, SAT 2	67
Kenya	O, SAT 1	O, SAT 2 <sup>6</sup>			O, SAT 1	26	O, SAT 1, SAT 2, A	103
Libya	O		O, A, SAT 2	14	report missing		O	2
Rwanda					report missing		A, O, SAT 2	7
Somalia					?	39	?	?
Sudan					?	6	?	9
Tanzania					?	7	?	51
Uganda		O <sup>3</sup>			O	15	?	4
Yemen					report missing		O	94

Commentary on the endemic serotypes for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))

\* In the 2011 Jan-Jun report Congo D.R reported serotype C to the WAHIS database of the OIE. Data was rechecked and not confirmed by the local authorities. However the notification of serotype C still remains in WAHIS.

#### New events

- serotype SAT 2 outbreaks cattle in Egypt and Libya<sup>1</sup>

#### Significant events from previous months

- Type O in Kenya -Rift valley (Nakuru, Laikipia) in January 2012<sup>6</sup>
- SAT2 in Kenya - Nakuru in autumn 2011 and continuation into 2012 (Naivasha)<sup>6</sup>



**Pool 5. WEST AFRICA**

Country	Data RESOLAB Jan-Aug 2011 <sup>5</sup>	Data from field officers <sup>3</sup>	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Benin					A, O, SAT 1, SAT 2	22	A, O, SAT 1, SAT 2	39
Burkina Faso					?	48	?	111
Cameroon	pending				?	35	?	32
Cape Verde					report missing		report missing	
Central African Republic					report missing		?	11
Chad					report missing		?	2
Congo D. R.	O, A				A, C, SAT 1	2		not reported
Congo R.					not reported		not reported	
Cote d'Ivoire		no known outbreaks			SAT 1, A	13	?	15
Equatorial Guinea					not reported		not reported	
Gabon					not reported		not reported	
Gambia		no known outbreaks			report missing		report missing	
Ghana	43 samples ELISA pos.	no outbreaks reported			?	57	?	39
Guinea Bissau					not reported		not reported	
Guinea Conkary					not reported		not reported	
Liberia					report missing		report missing	
Mali	SAT 2				?	3	?	4
Mauritania					not reported		not reported	
Niger					?	37	?	72
Nigeria	no virus detected				?	10	?	17
Sao Tome & Principe					report missing		report missing	
Senegal	no virus detected				?	12	?	6
Sierra Leone					not reported		not reported	
Togo	FMDV				O, SAT 1	79	O, SAT 1	42

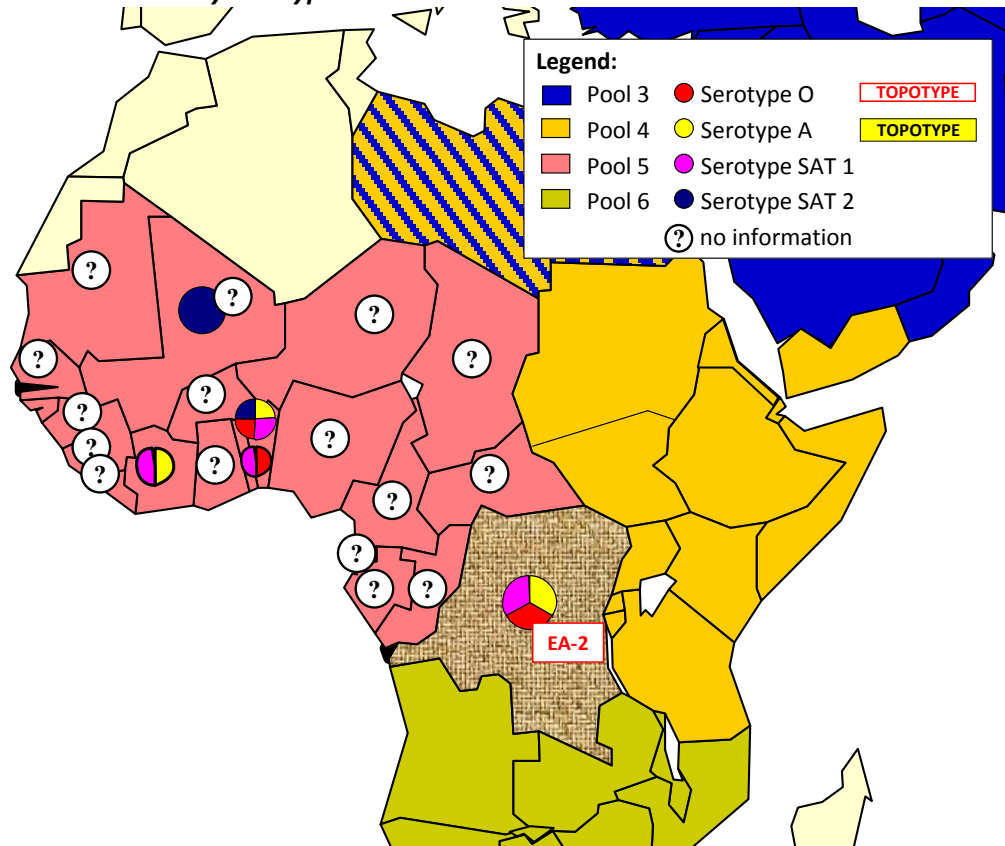
Commentary on the endemic serotypes for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))

**New events**

**Significant events from previous months**

**Continuing events from previous months<sup>1</sup> (OIE status)**

**Pool 5. FMD distribution by serotypes 2010 - 2011**



**Comments for results available (WRL)<sup>4</sup> in 2011**

Democratic Republic of the Congo (DRC) - See pool 4.

**Pool 6. SOUTH AFRICA**

Country	Data WRL FMD <sup>4</sup>	Data from field officers <sup>3</sup>	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and annual report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Angola					report missing		SAT 2	1
Bostwana	SAT 2				SAT 2	3	SAT 2	1
Congo D. R.	O, A				A, C, SAT 1	2	not reported	
Malawi					SAT 2	2	?	?
Mozambique					SAT 2	11	SAT 2	10
Namibia					SAT 1	4	SAT 1	1
South Africa		SAT 3	SAT 2	2	?	12	SAT 1	5
Zambia					O	1	O	1
Zimbabwe	SAT 2				SAT 2	1	SAT 2	9

**New events**

**Significant events from previous months**

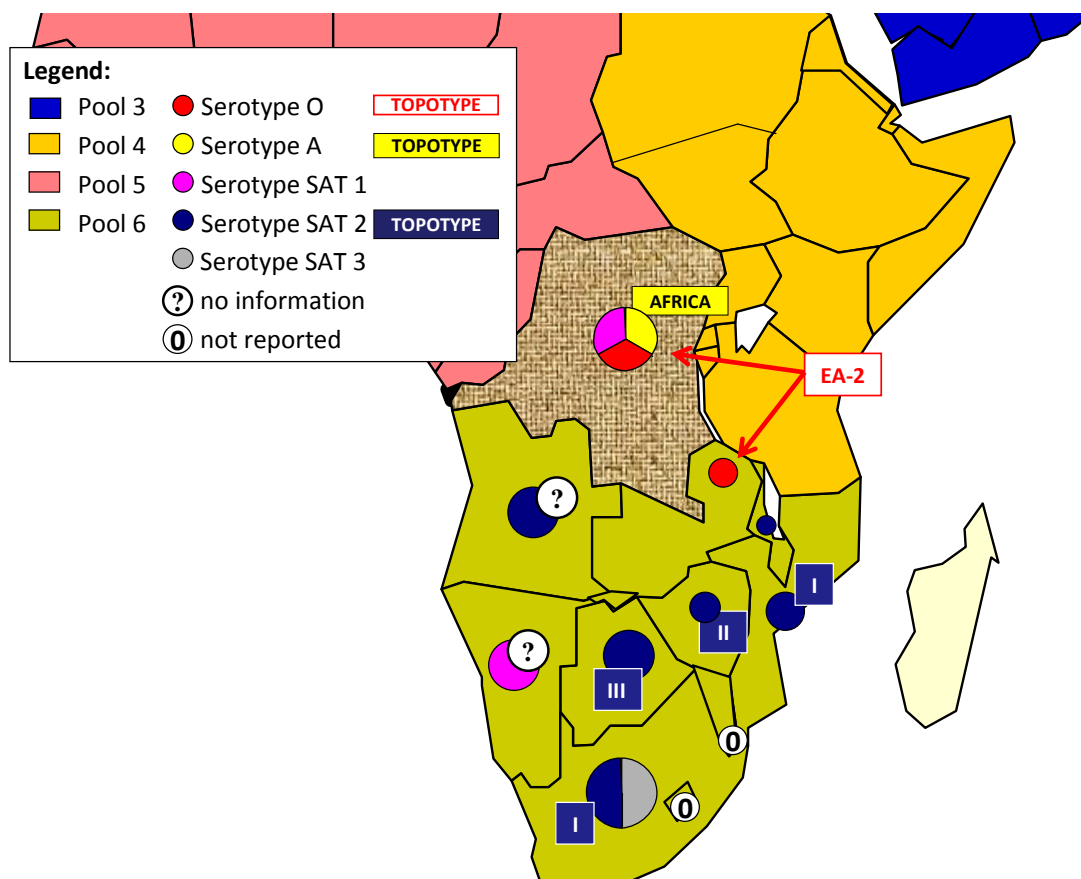
- serotype SAT 2 outbreaks in cattle in South Africa<sup>1</sup> in Jan 2012

**Continuing events from previous months<sup>1</sup> (OIE status)**

Country	Start of event	Outbreaks: Serotype	Date of previous occurrence
Angola	27/02/2009	SAT 2	1974
Botswana	17/09/2011	-	17/11/2009
Mozambique	24/09/2010	SAT 2	23/08/2003
Namibia	26/11/2011	SAT 1	06/08/2010

Commentary on the endemic serotypes for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))

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



**Comments for results available (WRL)<sup>4</sup> in 2011**

**Botswana**

Previously, in February 2011, an outbreak of FMD serotype SAT 2 was reported in cattle at Kaepe crush, Okavango, Ngamiland, Maun. A second focus of infection in cattle, also due to serotype SAT 2, was reported on 29/04/2011 at Butale Syndicate Crush, Francistown, North East, close to the border with Zimbabwe. The previous outbreak of FMD in this area was in 2003. Subsequently, two further outbreaks were report in the region (on 22/05/2011 at Mabethe Crush, Francistown and on 27/05/2011 at Ramokgwebana, Selibe-phikwe, Central, Selibe Phikwe).

Collaboration between the Botswana Vaccine Institute (BVI) and the WRLFMD has shown that the viruses isolated from the two foci belong to two different serotype SAT 2 topotypes. The viruses from the Maun area belong to topotype III and are closely related to viruses present in that area during 2008 and 2009.

A new outbreak of FMD was reported in cattle at Itoto, Okavango, Ngamiland, Maun (17/09/2011); typing and genetic analysis by the regional reference laboratory is awaited.

*Democratic Republic of the Congo (DRC) - see pool 4*

#### Pool 7. SOUTH AMERICA

Country	Data WRL FMD <sup>4</sup>	Data from field officers <sup>3</sup>	Reported serotype/outbreaks in OIE 2012 (immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2011 (1 <sup>st</sup> 6 month report or/and immediate notifications) <sup>1</sup>		Reported serotype/outbreaks in OIE 2010 (annual report) <sup>1</sup>	
			Serotype	No of outbreaks	Serotype	No of outbreaks	Serotype	No of outbreaks
Ecuador					O	3	O	42
Paraguay					O	2	not reported	
Venezuela					report missing		A	3

*Commentary on the endemic serotypes for 2010 is found in the annual FAO/OIE FMD surveillance report ([www.wrlfmd.org](http://www.wrlfmd.org))*

#### New events

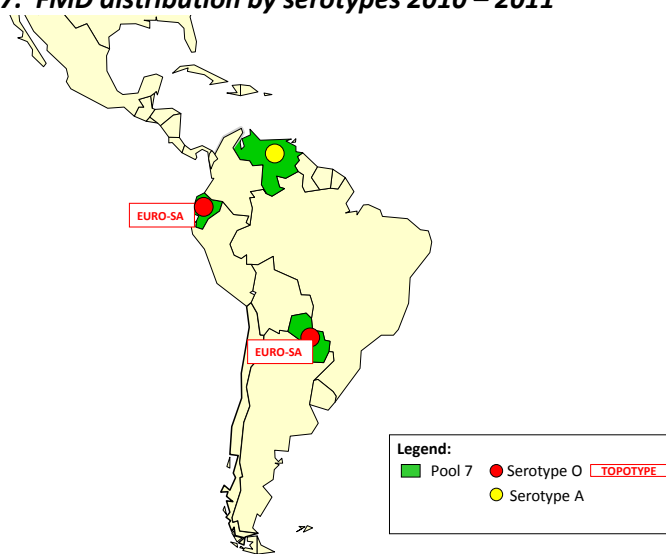
##### Significant events from previous months

- 2 serotype O outbreaks in cattle in Paraguay<sup>1</sup>

##### Continuing events from previous months<sup>1</sup> (OIE status)

Country	Start of event	Outbreaks: Serotype	Continued outbreak / Date of previous occurrence
Paraguay	17/09/2011	O	07/2003

#### Pool 7. FMD distribution by serotypes 2010 – 2011



## Annex

### Current and continuing disease events in February 2012

#### Reported events in Feb 2012

- serotype O outbreak in pigs in China (Taiwan Province)<sup>1</sup>
- serotype O outbreak in cattle in China (Mainland)<sup>1</sup>
- serotype O and A outbreaks in cattle, sheep and goats in Libya<sup>1</sup>
- serotype SAT 2 outbreaks cattle in Egypt<sup>1</sup> and Libya

#### Continuing events<sup>1</sup> (OIE status)

Country	Start of event	Outbreaks: Serotype	Date of previous occurrence
Angola	27/02/2009	SAT 2	1974
Botswana	17/09/2011	-	17/11/2009
China (People's Republic of)	22/02/2010	O	01/2010
China (Taiwan Province)	26/01/2012	O	19/12/2011
Egypt	18/02/2012	SAT 2	05/2010
Kazakhstan	11/08/2011	O	26/07/2011
Korea (Republic of)	26/11/2010	O	19/06/2010
Libya	22/12/2010	O	02/04/2009
Mozambique	24/09/2010	SAT 2	23/08/2003
Namibia	26/11/2011	SAT 1	06/08/2010
Paraguay	17/09/2011	O	07/2003

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