



# Report on activities in response to the SAT2 crisis

## Pillar 2

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# Summary of key points

- Rapid response missions to Egypt following SAT2 incursions
- Introduction to Egypt of PCP-based national strategy development process
- Affected and at-risk countries trained and supplied with reagents to detect SAT2 incursions soon after crisis began
- Training provided to affected and at-risk countries at regional workshops on surveillance and management strategy for FMD
- Rapid assessment mission to West Bank & Israel in response to April 2013 FMD reports in Gaza
- Support to regional FAO strategic response in region, support to African regional surveillance networks





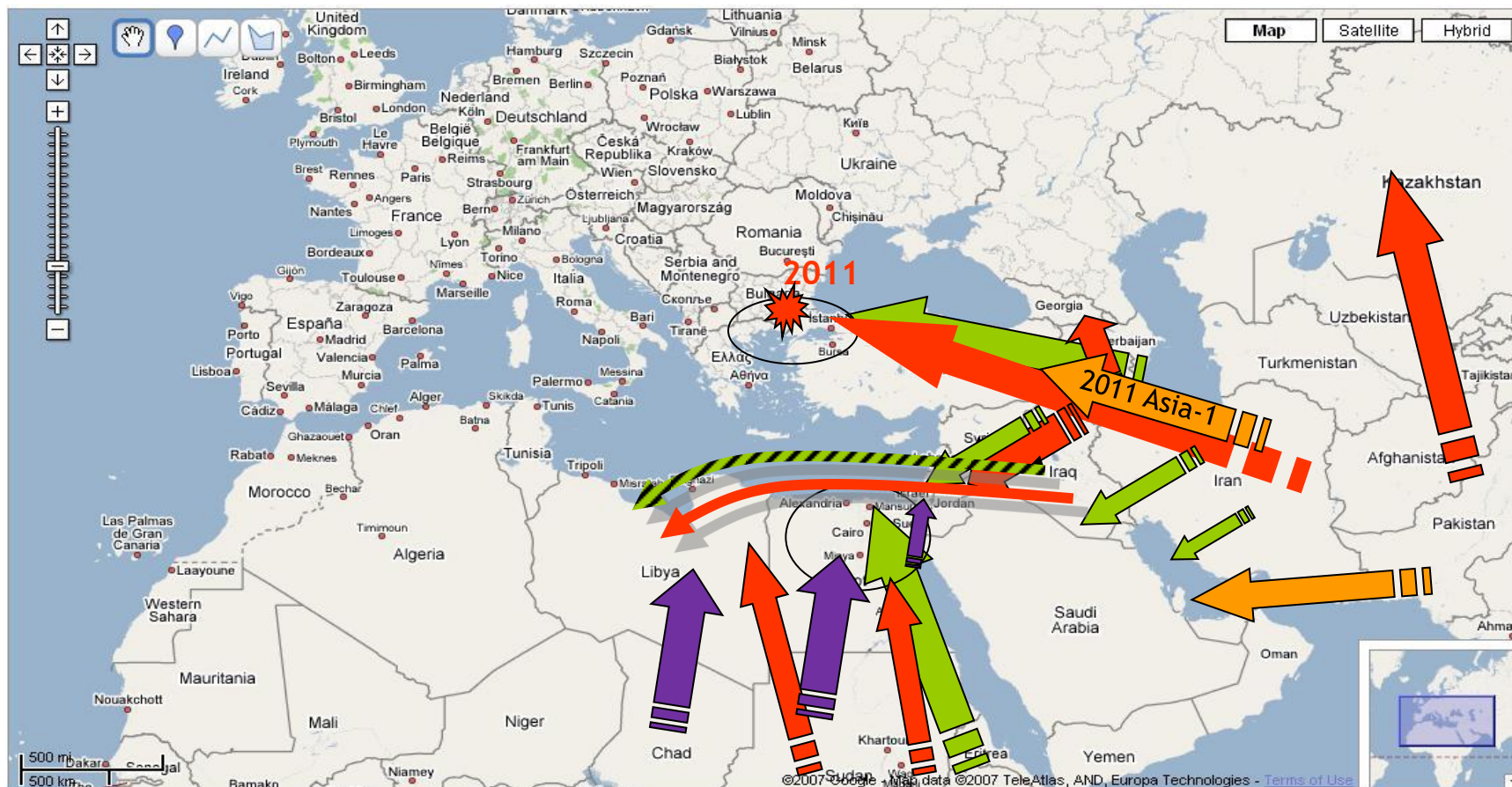
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## 2010-2012: FMD incursions into North Africa and West Eurasia



Type O, Type A, Type Asia-1, Type SAT2





# Initial Detection of SAT2 in Egypt and Libya

- Final workshop of EuFMD/EC Egypt project to support PCP activities, including diagnostics, held 29/2/12 - analysis of lab results and epidemiological situation
- **SAT2** in Egypt confirmed by sequencing on 6/3/12 in Cairo lab (AHRI); subsequently confirmed in samples sent to WRL (two separate but related sub-lineages)
- Also detected in Egypt : **exotic type A virus** and **exotic type O virus**, both of sub-Saharan origin, unrelated to West Eurasia O and A viruses in Egypt
- Libya: samples taken from Benghazi (East Libya) in February tested positive for **SAT2** - different sub-lineage to Egyptian SAT2
- **Type O of sub-Saharan origin** also detected in samples taken near Benghazi during CMC-AH mission – very closely related to Egyptian type O
- Type O detected in samples from Tripoli (CMC mission): PanAsia2<sup>Ant-10</sup> sublineage



# EuFMD Rapid Assessment Missions to Egypt

**Key achievements:** rapid deployment of first mission (within 5 days of SAT2 confirmation); series of follow-up missions; introduction of PCP-based approach to developing strategy

## Objectives:

- undertake a rapid assessment of the outbreak situation
- make preliminary recommendations to the Egyptian authorities on actions to be taken, particularly those applicable in the immediate and short term, that could reduce the spread of disease
- collect baseline information to facilitate further FAO technical support.
- develop longer-term PCP-based strategy for FMD control



# Biosecurity

## District Veterinary Office

- Mixing of clinical FMD cases
- No biosecurity
- No awareness

## Data management

## Communication



Market closures:  
Hard to enforce





# Other support activities to Egypt

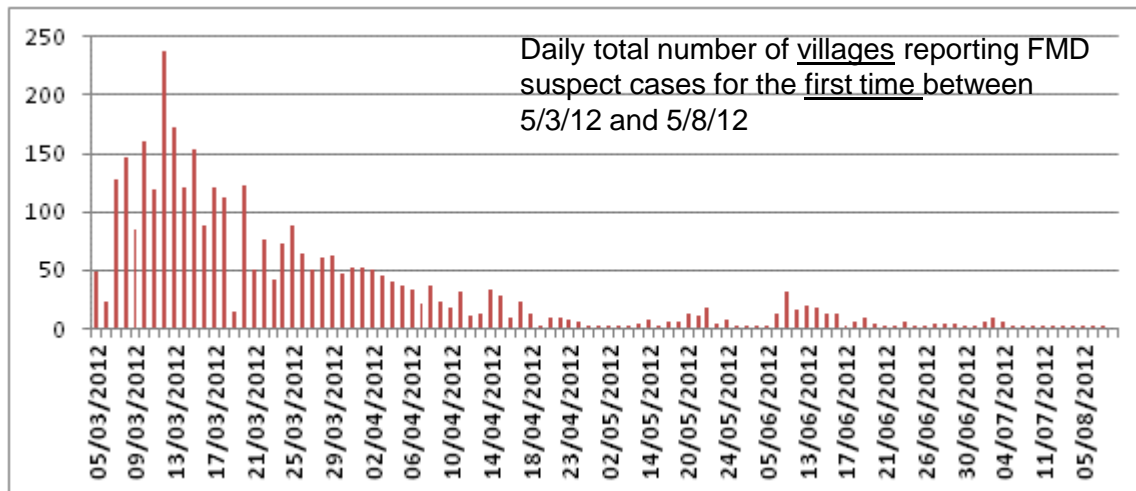
- Lab training plus antigen ELISA kits supplied, with technical support afterwards
- Vaccination: support for production of SAT2 vaccine, advice on strategy and post-vacc surveillance
- Epidemiology: assistance with active surveillance, assessment of dynamic trends
- Virology: samples sent to WRL
- Coordination meeting in Cairo in May: discussion of strategy and response
- National consultants recruited, providing monthly reports
- Training on diagnostics in IZSLER for AHRI staff supported







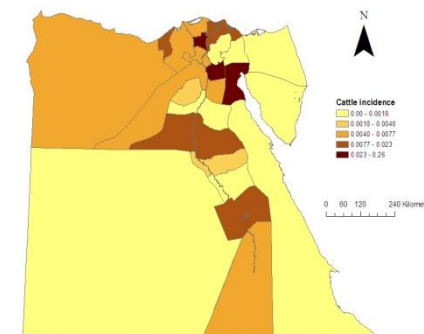
# Proposed further support to Egypt



## Four separate sub-Saharan incursions:

- Two SAT2 lineages
- Sub-Saharan type O (Eth/Eri)
- Sub-Saharan type A

SAT2 predominant – but relatively few samples typed



Cattle incidence March 2012

- Proposal for project based on PCP support sent to EC in July 2012.
- Proposal remains valid.



# Support activities to Libya

- EuFMD lab support mission in July (following request of OIE/FAO CMC-AH after their emergency mission in May)
- Provision of laboratory supplies (Ag-ELISA kit; SAT2-specific penside tests)
- Support to REMESA/UMA for regional response (Rabat workshop)
- Discussion of vaccination strategy (TAIEX meeting)
- Training of Libyan vets on real-time outbreak investigation courses in Kenya (self-funded)
- Provision of training material to Libyans for cascade training



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**ATELIER DE FORMATION - Le diagnostic de la fièvre aphteuse**  
**ANSES – Laboratoire de Santé Animale de Maisons-Alfort, France**  
**21-25 mai 2012**



# Paris laboratory training

- Hosted by ANSES, funded by EuFMD, coordinated with FAO Tunis and REMESA
- Very successful, organised very rapidly and efficiently by ANSES
- EuFMD supplied Ag-ELISA kits to all participants
- Follow-up regional lab activities agreed, coordinated with REMESA – report and plan on RELABSA website.
- Output: improved diagnostic capacity and identification of key actions for lab follow up





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# Larnaca workshop, June 2012

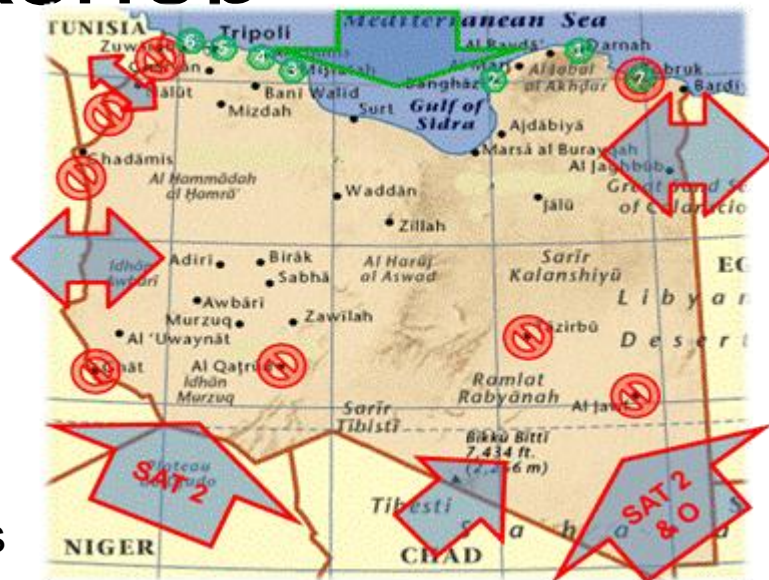
- 
- A group of ten people, seven men and three women, posing for a group photo outdoors on a grassy area with dense green foliage in the background. They are arranged in two rows, with three people kneeling in the front and seven standing behind them. The participants are dressed in casual to semi-formal attire, including polo shirts, button-down shirts, and a hijab.
- Training and coordination on surveillance in high risk border zones
  - Egypt, Israel, PAT (Gaza Strip), Jordan



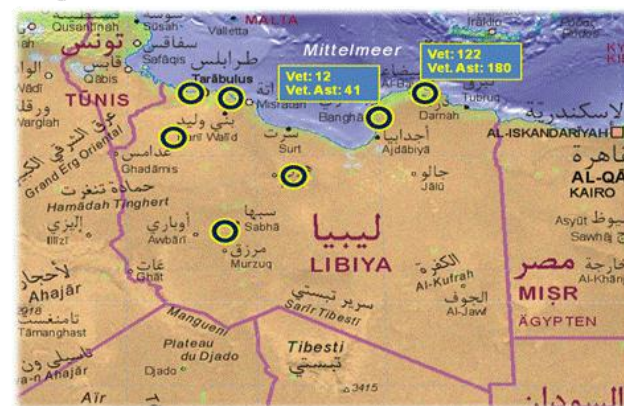


# Rabat workshop

- EC/EuFMD funded, in support of REMESA, UMA, OIE, FAO Tunis
- Addressed regional surveillance and coordination of control and management activities
- Output: Coordinated actions agreed by CVOs
- Specific heightened surveillance actions agreed in Libya/Tunisia border zone
- Further discussion and agreement at TAIEX meeting



## Répartition des vétérinaires et des techniciens





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# SAT2 in Gaza

- April 2012: SAT2 confirmed in samples taken from a farm in Rafah, on border with Egypt
- Only one farm reported affected; no more since detected
- Israel had already vaccinated against SAT2 along border with Egypt & Gaza
- Cattle in Gaza vaccinated against SAT2 during late April
- Sequencing showed Gaza SAT2 was very closely related to Egyptian SAT2





# Support to PAT/Gaza in 2012

- OIE/FAO CMC-AH mission in May – EuFMD provided technical advice
- EuFMD had trained lab staff from Gaza, WB and Jordan in Cairo in March, and provided Ag-ELISA kits
- EuFMD developed active surveillance plan for Gaza to assist CMC mission
- PAT (Gaza) delegates at Larnaca surveillance workshop



# Response to 2013 FMD outbreak in Gaza

- March 2013: report of FMD case in Rafah; samples taken, inconclusive results. FAO teleconference: EuFMD, EMPRES, FAO Jerusalem – request for support and mission.
- EuFMD provided guidelines on sampling, outbreak investigation, lesion ageing and biosecurity, in Arabic and English
- EuFMD provided Svanova penside FMD tests
- Second farm affected – samples taken; penside test +ve
- FAO/EuFMD joint mission to West Bank and Israel within 10 days:
  - Training support on sampling; provision of advice
  - Coordination meeting in Tel Aviv with Israel, West Bank and Gaza Strip vets
  - Follow-up actions identified: immediate support actions and medium/long-term proposals







# Rapid response mission to West Bank and Israel

## *Clinical investigation & sampling training in West Bank*

### ***“Train the trainers” approach***



Field training outside  
Ramallah, West Bank,  
two weeks ago (10<sup>th</sup> April)



# Cascade training in action in Gaza

*Six days after EuFMD/EMPRES training*

Provided by FAO Jerusalem project officer:  
Training provided to vets and para-vets in Gaza





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# Supporting FAO strategic response

- EuFMD input into FAO regional response strategy
- Increased coordination with other units (FMD Unit, OIE/FAO CMC-AH, FAO ECTAD, FAO Tunis, REMESA, UMA, EU/TAIEX)
- EuFMD input into regional PCP workshop (Cairo, December 2012)
- EuFMD provided technical guidance on diagnostics and vaccine supply

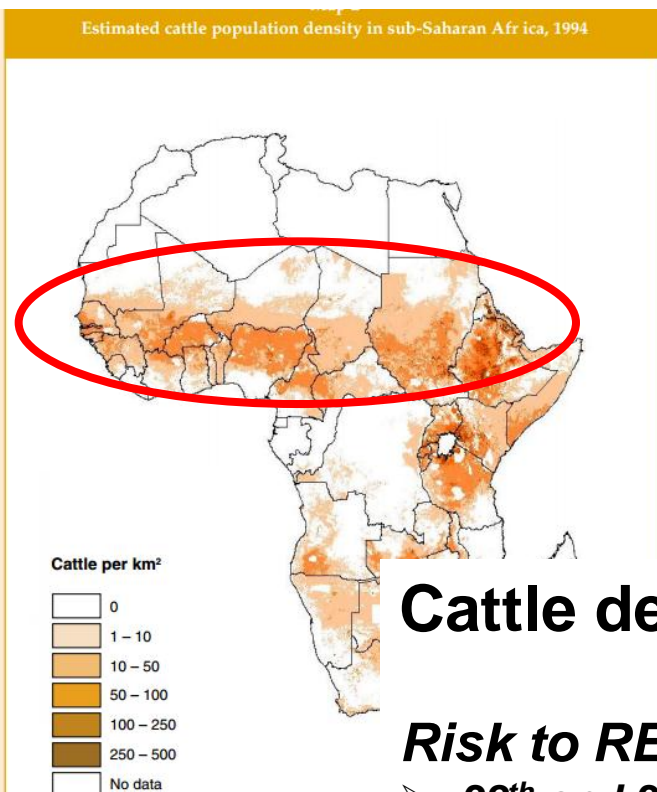


# 4 year Strategy (2009-12) agreed at the 38th Session in 2009

Level	Description	Indicators	Monitoring and evaluation	Assumptions and risks
	<i>Category 2: Routine activities carried out to assist risk assessment of FMD entry and assessment of European vaccine bank suitability Virus observation actions;</i> 2.1.3 African proximity surveillance	- West EurAsian network conducts regular teleconferences - operational FMD collection and typing hubs in 5 African "hot-spots".	Exec. Comm. Reports (every 6 months)	Funding commitments to 2-4 yrs actions not derailed by FMD emergencies Complementary actions by other donors progress as planned.

## Key achievements

- Established FAO-led improved surveillance and expertise under (RESOLAB). These did not exist before 2010.
- The significant into No multiple virus incursions from these regions
- These program others (e.g. USAID-funded FAO Identify
- Low cost outputs contributes to monthly FMD report; information
- Standards represent **Cattle density in sub-Saharan Africa**  
**Risk to REMESA states!**  
 ➤ 38<sup>th</sup> and 39<sup>th</sup> GS recommendations  
 networks and third party funding agencies





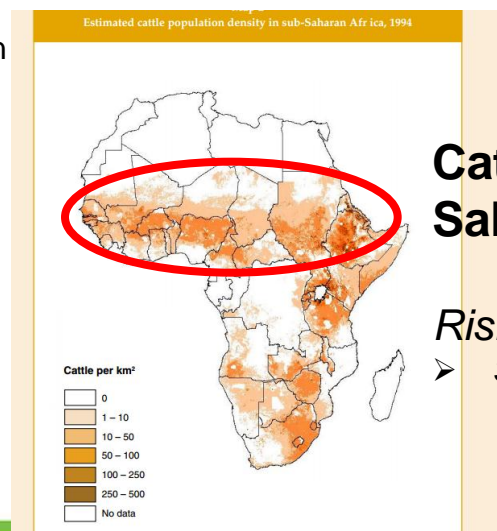
## Support to RESOLAB-FMD

- Eufmd Agreement (2011)  
Collated information into quarterly & annual report, widely shared
- Laboratory Training, Accra (Ghana) 2012  
(Republic Of Congo, Democratic Republic Of Congo, Central African Republic, Cameroon, Nigeria, Togo, Ivory Coast, Senegal & Ghana) Organised by FAO; mainly funded by USAID/Identify with EuFMD supplying trainers & reagents
- Training In Outbreak Investigation  
Resolab FMD Coordinator trained in outbreak investigation in Kenya (Real-time Training Course) (funded by Identify)



## Support to EARLN-FMD

- 2011 – Meeting In Ethiopia
- Trainings
  - Kenya, Embakasi Lab: Vaccine Matching (2 Vets Trained In Nov.2011), lab diagnostic techniques
  - Nakuru Real-time training courses: many Kenyan vets trained
  - Serotype-specific Primers For East African virus strains under development as part of research project

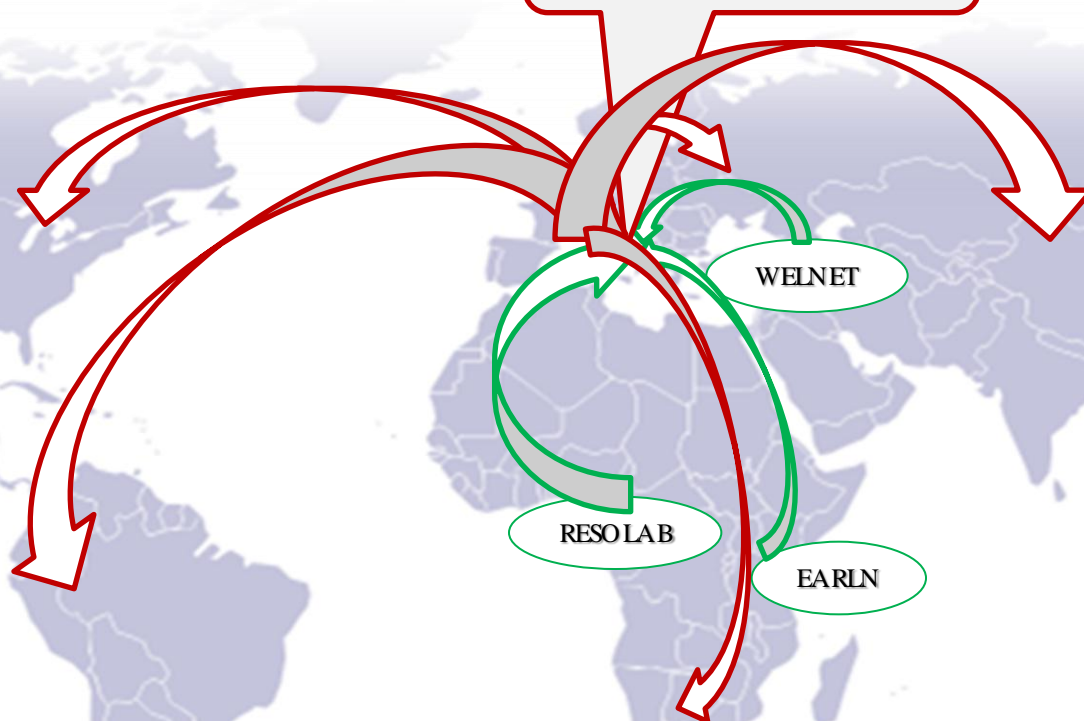


### Cattle density in sub-Saharan Africa

*Risk to REMESA states!*

➤ 38<sup>th</sup> and 39<sup>th</sup> GS recommendations

MONTHLY REPORT



CVOs  
LABORATORIES

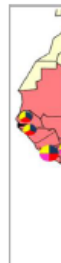


December, 2012

Table 9: Pool 5 FMD history 2010-2012

COUNTRY	FMD HISTORY (past 2 years)	LAST OUTBREAK REPORTED/TYPE	OIE FMD STATUS
BENIN, 2011	2011 – A, O, SAT 1, SAT 2 <sup>4,1</sup>	DEC 2011/O, A, SAT 1, SAT 2 <sup>1</sup>	DISEASE PRESENT
BURKINA FASO, 2011	2011, 2012 – O, A, SAT 2 <sup>4</sup>	NO PRECISE DATA, DEC 2011 <sup>1</sup>	DISEASE PRESENT
CAMEROON, 2011	2011 – O, A, SAT 2 <sup>4,1</sup>	2012 <sup>4</sup>	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 <sup>4</sup>	2011/2012 <sup>1</sup> , NO PRECISE DATA	UNKNOWN
CONGO D. R., 2011	2011, 2012 O, A, SAT 1 <sup>4</sup>	DEC 2012 <sup>14</sup> /NOT TYPED	LIMITED TO ONE OR MORE ZONES
CONGO R., NO SUBM. REPORTS	NO DATA AVAILABLE		
COTE D'IVOIRE, 2011	2011 – SAT 1, A <sup>1</sup> , O, SAT 2 <sup>4</sup>	2011 <sup>4</sup>	LIMITED TO ONE OR MORE ZONES
EQUATORIAL GUINEA, 2011	NO DATA AVAILABLE		DISEASE SUSPECTED, NOT CONFIRMED
GABON, 2011	2011 – ABSENT <sup>1</sup>	NO IN 2006-2012 PERIOD <sup>1</sup>	NEVER REPORTED
GAMBIA, NO SUBM. REPORTS	2011, 2012 – O, A, SAT 2 <sup>9</sup>	2011/2012 <sup>1</sup> , NO PRECISE DATA	DISEASE PRESENT
GHANA, 2011	2011 – O, A, SAT 1, SAT 2 <sup>4,1</sup>	DEC 2011 <sup>1</sup>	DISEASE PRESENT
GUINEA BISS., 2011, ½ 2012	2011, 2012 – ABSENT <sup>1</sup>	NO IN 2009-2012 PERIOD <sup>1</sup>	NOT REPORTED IN THIS PERIOD
GUINEA, 2011, ½ 2012	2011, 2012 – ABSENT <sup>1</sup>	NO IN 2007-2012 PERIOD <sup>1</sup>	NOT REPORTED IN THIS PERIOD
LIBERIA, NO SUBM. REPORTS	2011, 2012 – A, SAT 2 <sup>4</sup>	2011/2012 <sup>4</sup> , NO PRECISE DATA	UNKNOWN
MALI, 2011	2011/2012 – O, A, SAT 1, SAT 2 <sup>4,1</sup>	2011/2012 <sup>4</sup> , NO PRECISE DATA	LIMITED TO ONE OR MORE ZONES
MAURITANIA, 2011	2011, 2012 – ABSENT <sup>1</sup>	NO IN 2007-2012 PERIOD <sup>1</sup>	NOT REPORTED IN THIS PERIOD
NIGER, 2011	2011/2012 – O, A, SAT 1, SAT 2 <sup>4,1</sup>	NO PRECISE DATA, OCT 2011 <sup>1</sup>	LIMITED TO ONE OR MORE ZONES
NIGERIA, 2011, ½ 2012	2011/2012 – O, A <sup>4,1</sup>	OCT/NOV 2012/A, O <sup>4</sup>	DISEASE PRESENT
SAO TOME PRINCE, NO SUBM. REPORTS	NO DATA AVAILABLE		
SENEGAL, 2011	2011/2012 – O, A, SAT 2 <sup>4,1</sup>	NO PRECISE DATA, DEC 2011 <sup>1</sup>	DISEASE PRESENT
SIERRA LEONE, 2011	2011, 2012 – ABSENT <sup>1</sup>	OCT 1958 <sup>1</sup>	NOT REPORTED IN THIS PERIOD
TOGO, 2011	2011, 2012 – O, SAT 1 <sup>1,4,1</sup>	FEB 2012 <sup>4</sup>	DISEASE PRESENT

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Map 8:

POOL  
China<sup>2</sup>POOL  
Nepal<sup>1</sup>POOL  
Iraq<sup>5</sup>Turkey  
Iran-O<sup>1</sup>POOL  
Tanzan<sup>1</sup>POOL  
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No ne



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