Report on activities in response to the SAT2 crisis

Pillar 2

Eoin Ryan
EuFMD Secretariat
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_{Ant-10} 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

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

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

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
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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40th General Session of the EuFMD
22-24 April 2013, Rome (Italy)
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

- 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
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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 (10th 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
Supporting regional surveillance networks in Africa

Actions taken in response to specific recommendations of 38th and 39th General Sessions re: support for surveillance networks in sub-Saharan Africa

Key achievements:
- Establishment of FMD laboratory networks for improved surveillance and expertise under FAO-led regional laboratory networks (EARLN, RESOLAB). These did not exist before 2010.
- The significance of these is highlighted by the multiple virus incursions from these regions into North Africa (REMESA members) in 2012.
- These networks are now receiving support from others (e.g. USAID-funded FAO Identify programme).
- Low cost, high impact – information supplied contributes to monthly FMD report; information outputs available to all.
- Standing technical committee evaluation: “The studies were very successful and represented excellent value for money thanks to the approach of collaborating with local networks and third party funding agencies.”

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

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

Risk to REMESA states!

- 38th and 39th GS recommendations
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!

- 38th and 39th GS recommendations
MONTHLY REPORT

CVOs
LABORATORIES
<table>
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<tr>
<th>COUNTRY</th>
<th>FMD HISTORY (past 2 years)</th>
<th>LAST OUTBREAK REPORTED/TYPED</th>
<th>OIE FMD STATUS</th>
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<td>CENTRAL AFR. REP.</td>
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