

1st Middle East FMD Epidemiology and Laboratory Networks Meeting

26 – 28 November 2019
Cairo, Egypt



Communique

Draft

BACKGROUND

Foot and Mouth Disease (FMD) severely affects the production of livestock, disrupting regional and international trade in animals and animal products. In order to reduce the FMD burden, the Food and Agriculture Organization of the United Nations (FAO) and the World Organisation for Animal Health (OIE) developed a 15-year Global FMD control Strategy in 2012 and encourage endemic countries to progressively control FMD using the progressive control pathway for FMD (PCP-FMD) approach at country level, with aligned coordination at regional level.

The Middle East Countries have participated in four Regional Roadmap meetings aiming to monitor their progress along the PCP. To enforce the regional efforts, share information, exchange expertise, and build the national capacity, the Regional Epidemiology and Laboratory networks for the control of FMD and other important transboundary animal disease such as peste des petits ruminants shall be established.

This first regional epi and lab networks meeting for the Middle-East was organized under the umbrella of the FAO/OIE Global Framework for the Progressive Control of Transboundary Animal Diseases (GF-TADs). This workshop was conducted in collaboration with the European Commission for Foot-and-Mouth Disease (EuFMD) and co-funded by the European Union and the Republic of Italy. The meeting was hosted by the Government of Egypt and it was held in Conrad Hotel, 1191 Corniche el Nile, Cairo, Egypt.

PARTICIPANTS

The respective governments nominated the laboratory and epidemiology point of contacts (POCs) of Bahrain, Egypt, ~~Iraq~~, Jordan, Lebanon, Palestine, ~~Qatar~~, Libya, Saudi Arabia, ~~Syria~~, United Arab Emirates, Yemen and Oman. These POCs are considered as standing members of the networks.

Representatives of Gulf Cooperation Council (GCC) secretariat, FAO, OIE, EuFMD, World Reference Laboratory, ANSES, and epidemiology experts. Representatives from Iraq, Syria, Qatar, and Kuwait were invited but for a variety of reasons could not attend.

Observers: Private industries and university experts

The agenda for this workshop is depicted at the end of this communique.

OBJECTIVES

The main objectives of the meeting were to:

- Establish the regional epidemiology and laboratory networks with active engagement into activities in the implementation of the control strategies following the plan of PCP;
- Select and nominate the epi and lab network leaders and regional leading laboratories;
- Develop agreeable workplan for the regional needs for 2020-21;

- Explore approaches for linking the laboratory and epidemiology networks for continuous support to the national and regional objectives for FMD control;

Day 1

Opening Remarks:

Dr Néó Mapitse of OIE, Mr. Abdessalam OuldAhmed, Assistant Director General of the Near East and North Africa Region and Regional Representative of FAO, and Dr Mahmoud Mohamed Ali Abdelhakim, Chief Veterinary Officer of Egypt, each welcomed the participants to the first regional Middle East FMD Epidemiology and Laboratory Networks Meeting. All emphasized on the importance of this meeting for maintaining reliable and systematic FMD control in the entire region. It was indicated that food sustainability required healthy livestock with less impact from diseases such as FMD. Dr. Abdelhakim demonstrated some of the current combating efforts against FMD in Egypt.

Dr. Samia Metwally of FAO then introduced the agenda to the participants and requested a short introduction from each to other participants. Dr. Metwally listed the expected objectives of the meeting with the expected outcome at the end of this meeting. She emphasized that FMD can be considered as a model for other diseases in establishing reliable surveillance and control program in the entire region. The agenda was adopted with no change.

Dr Friederike Mayen from FAO Regional Office for Near East and North Africa in Cairo presented currently supported projects with components on FMD and TADs in the Region, for example in Sudan, Iraq, Syria, as well as a Regional Project which targets strengthening of Surveillance and Control capacities and disease information networks in 10 countries of the Region. Support to the development of the Risk Based Strategic Plan to control FMD was given to Sudan, Palestine and Jordan, Egypt already finalized their RBSP. A workshop held in Tunis in September 2019 focused on surveillance and early detection of FMD in North Africa, specifically Algeria, Morocco and Tunisia.

Dr. Samia Metwally presented the recommendations from the implementation of the 4th Regional FMD Roadmap Meeting Middle East that was held in Amman, Jordan in October 2017. Dr. Metwally shared her thought about the FMD laboratory network with emphasis of the purpose of network by listing all the function items of the laboratory. The terms of references for the leader of the lab network were presented. She requested to suggest effective name of each of the two networks. Dr. Metwally listed the selection criteria for the involvement of countries with the following items: Creditability and acceptance by countries of the region; Commitment from the government to support and sustain lab functions as described in the terms of reference, Lab capacity and capability to perform diagnostics for FMD/PPR/other TADs, capability to handle exotic viruses from other countries in the region, certification to ship and receive international diagnostic samples, participated or willingness to take part in OIE twinning program, keen interest to be designated as a FAO/OIE reference center, established link with FMD reference laboratory, and maintain good performance on proficiency testing carried by reference center.

Dr. Valerie Mioulet of WRL of UK presented a quick update of the regional lab network with emphasis on the FMD reference laboratories. She emphasized on the following points:

- Epidemiology of FMD is very dynamic – can we predict what will come next?
- Impact upon selection and deployment of vaccines are essential elements in determining the efficacy of the vaccine strategy
- Calibration of vaccine-matching results between Reference Laboratories is important
- Sampling of field outbreaks is critical

- Importance of an active FMD Reference Laboratory Network to facilitate sample collection from FMD outbreaks in the field– to feed real-time lab data back to FMD control programs

Dr. Labib Bakkali of ANSES presented the principles of PCP and their relationship to the diagnosis of FMD from a laboratory respect. He reviewed the various tests with their limitations and suitability. The following highlight points were emphasized in the presentation:

- The PCP-FMD requires countries to monitor the disease, to implement risk-based control strategy and to continuously monitor and evaluate impact of control measures;
- Laboratory diagnosis is an essential component of FMD control program and plays an important role in supporting the different activities conducted under the PCP-FMD;
- Laboratory is involved in confirming diagnosis of FMD in clinical or suspect cases; in active surveillance studies and measuring the prevalence of infection/exposure and monitoring the success of control measures;
- When vaccination is used, laboratory is essential for vaccine matching and post vaccination monitoring;
- National Reference Laboratory with sufficient capacity to perform accurate virological and serological FMD diagnosis is one of the key requirements for progression through the PCP-FMD;
- OIE/FAO Reference Laboratories can provide support for laboratory capacity building and for confirmation of diagnosis.

A second presentation by Dr. Labib Bakkali of ANSES entitled “Assessment of lab capacities for FMD and other FAST diseases in North Africa and Middle East” was given. The project was presented under its oversell aim is to determine the laboratories’ needs among 10 countries in the region so technical support can be provided. Outcome form the project was presented including strengths and gaps in the current laboratory operation for diagnosis of FMD.

Dr. Gaël Lamielle of FAO presented the topic of “surveillance evaluation tool: Assessment of animal/zoonotic disease surveillance systems in a country.” Dr. Lamielle shared the background of the FAO initiative of Surveillance Evaluation Tool (SET) as a guidance to veterinary services and international partners for implementing surveillance capacity-building activities in countries. He showed the availability of other tools either through WHO – Global Health Security Agenda and its Joint Exertional Evaluation (JEE) tool or OIE-PVS. He demonstrated its success through its application in more than 10 countries.

Dr. Gaël Lamielle followed his first presentation with a second one under the title “FAO’s Epidemiology Mapping Tool (EMT)”. The EMT is another tool that was developed by the FAO South East Region with seminaries to SET but with emphasis on the epidemiological function and operation of animal health programs. He indicated, however, that the needs for either or both of these tools requires prior needs assessment for their suitability for the underlying objectives.

Drs. Metwally and Mapitse presented the outlines and the steps that are required for reliable planning in utilizing the PCP. The critical competencies of PCP and its link to PVS were presented. The aims and the requirements for laboratory and epidemiology networks were detailed as they were used in other regions.

Two break-out groups were assembled during the first day of the meeting with the aim to establish a structure for the proposed two network teams of laboratory and epidemiology. Dr. Metwally instructed the two groups to identify a leader or co-leaders for each of the network team. The participants were instructed to determine the needs through evaluation of the priory listed expected function and operation of each of the team members of the two networks.

Dr Motta presented the PCP self-assessment tool (SAT) to assist countries to define their PCP-FMD Stage and progression over time. The SAT is user-friendly excel-based excel sheet enabling the assessments of specific competences and capabilities based on the PCP guidelines and cross-referencing relevant critical competencies in the OIE-PVS Evaluation in four core domains: livestock sector and stakeholders, surveillance and diagnosis, veterinary services and prevention, control and evaluation. The participants practiced with a simple scenario the ability of the SAT's to provide a visual summary to assist veterinary services in the prioritization of tasks and functions, and inform communication with policymakers.

Day 2

Drs Metwally and Mapitse stated the second day with introduction of the requirements of surveillance system for PCP and provided overview on how to prepare a risk-based strategic plan (RBSP) as a requirement for advancing to PCP stage 2. There are currently eight countries in the Middle East roadmap are in the provisional PCP stage 2 and the RBSP is overdue to submit to the FAO WG for review and acceptance by the regional advisory group (RAG). The requirement and responsibility of PCP support officer (PSO) were described which is aiming to assist countries in drafting their control plans.

Professor Salman of Colorado State University led dialogue with the participants under the presented the topic of "Principles for designing a surveillance plan (PCP stages 1 and 2) & identifying hotspot". He addressed the issues under this topic by listing nine questions that required responses from the participants with final responses presented through slides. The main aim of this dialogue to establish solid ground for buy in of the establishments of the two networks as a main core of the operation of regional plan for PCP. He concluded that PCP has been designed and operated on the scientific principles of disease management but with serious considerations to nature of FMD, culture diversity, political issues, and trade implications. The added value in using PCP as a component of surveillance system was also emphasized.

Dr Motta presented a qualitative risk mapping analysis for the optimization of monitoring systems on FMD and similar transboundary diseases. Examples of applications of this integrated and iterative framework for qualitative risk analysis and risk mapping jointly developed by EuFMD CIRAD were also provided and discussed. During this session was provided a preliminary update on initial training conducted by EuFMD and CIRAD on regional risk mapping conducted in the Middle East and the relevant upcoming planned activities.

The Epidemiology and Laboratory networks worked in groups to develop activities and tentative timeline to draft the workplan for next biennium. The Epidemiology network identified five key priority actions (i) mapping available surveillance and control national plans, and the evaluations of the VS and of their specific capacities already conducted at national level; (ii) identify the most appropriate tool to assist a country to voluntarily assess specific capacities (EMT mission and PCP-SAT where mentioned as the most appropriate at this stage); (iii) receive training and acquire capacities to develop risk maps at national level as well as for defining better data collection strategies to inform the development and updating of risk maps; (iv) coordinate with the FAO/OIE WG a tailored assistance (PSO system) based on specific needs and on the outcomes of the assessments that will be conducted; (v) establish a sustainable communication and co-ordination mechanism internal and with Laboratory network (e.g. mailing list, WhatsApp group, online meetings; annual reports).

The Laboratory network identified four key priority actions for the next biennium including (i) map the capacities of the National Reference Laboratories, and identify gaps to perform accurate virological and serological FMD diagnosis (LMT was proposed but we mentioned that a specific FMD sub-tool is underdevelopment and might be made available in 2020); (ii) develop a plan for capacity building in PVM at regional level to ensure countries are capable to implement studies; (iii) develop procedures at national level to ensure regular submission of samples to international Ref Labs; (iv)

establish a communication and sharing mechanism for National Reference Laboratories to coordinate online and jointly review and implement the workplan its activities.

OUTPUTS (This section needs further elaborations with evidence such as the two groups presentation of their responses to the challenging questions by Samia)

- The epi and lab networks are established and the leader and assistance leader for each network were nominated by the countries:
 - Epi network leader and assistant leader are:
 - Dr Rehab Abdelkader (Egypt) and Dr Ali Elsafti (Saudi Arabia)
 - Lab network leader and assistant leader are:
 - Dr Amer Younes Ahmed Saleh (Jordan) and Dr Ahmed Refaat Habashi (Egypt)

The epi network agreed on the following workplan for 200-2021:

- Assess countries' capacity and capabilities in epidemiology and surveillance using the FAO, OIE and EuFMD tools
- Share knowledge, information and expertise across the region for benefits gained in advancing in FMD control through;
 - Establishing a regional database for storing and analyze date on virus circulation, surveillance and vaccine and vaccination
- Improve existing surveillance systems, through:
 - Training on designing of risk map and risk based surveillance(Support of regional and International Organization)
- Engage stakeholder and gain political commitment to stand behind the activities of the network and support the implementation of the workplan
- Improve disease surveillance in the region for better control and advancement along the FMD-PCP
- Harmonize FMD vaccine and vaccination schemes across the region
- Conduct animal mobility survey for the gulf and the rest of the Middle East
- Training on how to develop RBSP for countries in provisional PCP stage 2 with the expectation the all countries in the region prepared their plan by end of 2020
- Conduct socioeconomic impact studies to stimulate investment on FMD control by the government, private sectors and development partners.

The lab network agreed on the following workplan for 200-2021:

- Assess the capacity/capability and performance of the national veterinary diagnostic labs using the FAO LMT tool and other tools. The network leader and assistant leader with support from the WRL and ANSES agreed to carry out such assessment in 2020. Upon countries' agreement the result of the assessment can be shared at the network level
- Participate in proficiency test scheme (PTS). The first PTS will be coordinated by WRL/ANSES in 2021 with focus on the tests required for PCP stages 1 and 2
- Train one staff member from each national laboratory (train the trainer approach) on diagnostics in the reference lab in the first quarter of 2021. Funding is required to cover the staff travels. With the aim that countries become more familiar with the FMD diagnostics for early stages of PCP to incorporate in their routine diagnostics
- Countries are trained on the use of the epi and lab assessment tools and PCP-SAT.

- The network agreed on sharing experience, information and technical manuals and SOPs in order to improving lab capacities.
- The lab and epi networks agreed to:
 - Identify training needs and prepare training plans based on the outcomes of the assessment
 - Share experience/consultation through What's app group, mail, online discussion and Visits
 - Prepare annual report on network activities, share across the networks. The reports to be submitted to the FMD working group; fao-fmd@fao.org and oie-fmd@oie.int by end of January starting in 2021
 - Countries, FAO, OIE and EuFMD to seek funding to support the network activities

Day 3

Dr Néo Mapitse of OIE presented on vaccination in support of FMD prevention and control programmes: practical considerations. He has elaborated on the need for compliance with OIE Standards. He highlighted about members' PCP-FMD and official FMD status or programmes as of October 2019. In his presentation, he stressed the objectives of vaccination and considerations before launching the vaccination, especially issues and challenges. According to Neo, countries need to have a vaccination strategy with critical elements to be considered in a vaccination programme, vaccine use, evaluation and monitoring of a vaccination programme, etc. He has provided checklist for implementing vaccination programme, exit strategy as well as FMD free country/zone status changing.

Valerie of WRL presented on how to interpret vaccine matching results. She has given workflow in vaccine matching, which is measuring the antigenic similarity between the field strains and vaccine strains by comparing the cross reactivity of a vaccinal (reference) serum against a field isolate and vaccine virus.

Dr Samia Metwally presented on how to order vaccines. This was on FMD Vaccine Procurement, which includes vaccine specifications and tendering process. She has covered steps for procurement of vaccines, selection of vaccine manufacturer as well as components of vaccine specifications that the excel sheet should contain. Dr Metwally provided some resource documents for use by participants for the same purpose.

Rehab of Egypt presented country experience in FMD vaccination and its challenges. She presented Egypt's vaccination strategy, policy of vaccination and use of locally produced vaccines, the needs for awareness for mass vaccination, and results obtained from FMD surveillance.

Dr. Shija Jacob presented outcome of a review of vaccination survey, which covered vaccination coverage and vaccine strains used in the region. In the report, in almost all countries vaccinations have been carried out by vets, endorsed by the government. The majority of countries vaccinated twice yearly (Mar-Apr & Nov-Dec) with small ruminants more frequently than large ruminants. Few countries considered the schedule of neighboring countries vaccination programme. There were varied vaccine policy within the country. Areas improvement are invest in sending samples for vaccine matching; proper selection of vaccine strains; investigate outbreaks; vaccination to focus on large ruminants and post-vaccination monitoring.

Paolo Motta of EuFMD, Friederike Mayen of FAO and Neo Mapitse of OIE presented on Training opportunities to support epi and lab networks. Various capacity building trainings are available as e-course, face-to-face course, National/Regional Practical training workshops. Some of the upcoming trainings listed were:

- GF-TADs FMD/PPR meeting, March and Dec 2020
- Inter-regional forum on zoning, April 2020
- Others TBC with partners
- OIE platform for training of veterinary services including e-learning modules

- Joint OIE/EuFMD workshops on implementation of standards
- In the Regional FAO-TCP entitled Strengthening Regional Coordination and collaboration for the prevention and control of TADs with focus on FMD and PPR in NENA Region, Regional capacity training on TAD surveillance and reporting foreseen for Sudan, Egypt, Jordan, Lebanon, Libya, Mauritania, Tunisia, Morocco, Algeria, Iraq

Regional Priorities
Neo to add

DAY 1

26 November 2019

Plenary session: Epi and Lab Networks & training

0800 – 0900 Registration

OPENING CEREMONY

0900 – 0930 Welcome and Opening Remarks *OIE*
GCC
FAO
Ministry of Agriculture- Egypt

0930 – 1000 Introduction of participants *Samia Metwally (FAO)*
Meeting Objectives and adoption of the agenda

1000 – 1020 Group Photo & Coffee Break

SESSION 1: Setting the stage for the networks *Chair:*

- 1020 – 1100
- Updates on implementation of recommendations from the 4th roadmap meeting *Samia/ Friederike*
 - Formulation of the epi and lab network *Samia/Neo*
 - Terms of reference for epi and lab network leaders *Samia/Neo*
 - Regional leading laboratories criteria *Samia/Neo*

Questions and answers (5 minutes) *(FAO and OIE)*

1100 – 1130 Regional situation and recent circulating strains *Valerie (WRL)*

SESSION 2: FMD diagnostics *Chair:*

1130 – 1200 An overview of FMD diagnostic tests for PCP stages 1 and 2 *Labib (ANSES)*

1200 – 1300 Lunch

1300 – 1315 Election of Epi and Lab Network Leaders and regional leading lab *All participants*

SESSION 3: Epi and Lab Tools for Capacity Assessments *Chair:*
(parallel sessions)

- 1315 – 1530 Epidemiology session
- OIE and FAO tools for assessment of epidemiology and surveillance
 - PVS tool (critical competencies) *Neo (OIE)*
 - Surveillance evaluation tool (FAO) *Gael*
(FAO)
 - Epidemiology Mapping tool (FAO) *Gael*
(FAO)

Laboratory session

- FAO, OIE and EuFMD tools for assessment of laboratories capabilities

- PVS pathway laboratory missions (sustainable national laboratory network)
Neo (OIE)
- Lab mapping tool and FMD diagnostics tool Christian
(FAO)
- Lab Mapping Exercise: Assessment of lab capacities for FAST diseases in NA
and ME regions (EuFMD)

1530 – 1545 Coffee / Tea break

1545 – 1615 Training on self-assessment tool (PCP-SAT) Paolo (EuFMD)

1615 – 1700 Guidance on packaging and shipping samples (IATA)
Demonstration on use of penside tests *WRL and ANSES*

1800 DINNER *Government of Egypt*

-End of Day 1-

DAY 2

27 November 2019

Epi and Lab network workplan

SESSION 4: Surveillance and control plan

Chair:

0830 – 1030 Principles for designing a surveillance plan (PCP stages 1 and 2)
& identifying hotspot *Prof Salman (CSU)*

1030 – 1045 Coffee Break

1045 – 1130 Overview on how to prepare the Risk-based Strategic Plan and PSO support *Samia/Neo*

SESSION 5: Epi and lab network workplan 2020-2021

Chair:

1130 – 1300 2 Breakout groups
• Lab network
• Epi Network *Participants*

1300 – 1400 Lunch Break

1400 – 1430 Presentation on workplan for epi and lab networks *Epi and lab network*

1430 – 1500 Round table discussion on reports from breakout groups,
link between lab and epi networks *All participants*

1500 – 1530 Qualitative risk mapping analysis, optimization of monitoring
systems on FMD and similar transboundary diseases *Paolo & Shahin*
(EuFMD)

1530 – 1600 Coffee Break

1600 – 1700 Timeline and implementation of the network workplan *RAG Chair*

1700 – 1730 Contribution to the region for TADs control including FMD
Contribution to the subregion for TADs control *GCC*

1800 DINNER

-End of Day 2-

SESSION 6: FMD vaccine and vaccination*Chair:*

- 0900 – 0920 Vaccination in support of FMD prevention and control programmes: practical considerations *Neo (OIE)*
- 0920 – 0950 How to interpret vaccine matching results *Valerie (WRL)*
Self-Assessment in Rinderpest Preparedness
China, Kazakhstan, Mongolia, Russian Federation
- 1930 – 1045 How to order vaccines: vaccination specifications and tendering process *Samia (FAO)*
- Country's experience *Egypt*
- 1045 – 1100 Coffee Break
- 1100– 1120 Review outcome of vaccination survey *Shija (FAO)*

SESSION 7: Closure of meeting and way forward*Chair:*

- 1120 – 1150 Training opportunities to support epi and lab networks *Neo/ Friederike / Paola*
- 1150 - 1200 Roundtable discussion *All participants*
- 1120 - 1200 Communique, regional priorities & investment *FAO/OIE/RAG*
- 1230 - 1300 Feedback from countries and closing remarks from organizations *All participants*
RAG/
GCC/OIE/FAO/Egypt
- 1300 – 1400 Lunch and departures

-Meeting adjourned -

List of Participants

Countries

Speakers

Observers

Organizations

