Emergency Management Centre for Animal Health

FAO’s Engagement in Animal Disease Detection and Response

The importance of Disease Surveillance and Alert Mechanisms: Lessons for the BWC
20 November 2018
Geneva
FAO Animal Health Service mandate:

- Prevent, contain and control the world’s most serious livestock diseases at their source, while also surveying for newly emerging pathogens in a changing environment

Core activities:
- Early warning and early detection to enhance early action and response
Disease Intelligence and Early Warning

- **Early warning** is prevention
- **Data collection** to enable early warning and prevention of animal diseases
- **Innovative technologies** - to support data collection, analysis and diseases threats forecasting
- **Risk assessment** - a good practice for prevention and accurate response
  - Support to response and disease surveillance
- **FAO/OIE/WHO GLEWS+ Platform** – initiative to better communicate among partners on disease threats.
Top 15 diseases monitored (2014-2018)

Zoonoses:
- Anthrax
- Avian influenzas
- Ebola
- Middle Eastern Respiratory Syndrome-Corona Virus
- Rift Valley fever

Source: FAO GLEWS, Animal Health Threat Update (AHTU)
Number of disease events monitored (2014-2018)

Source: FAO GLEWS, Animal Health Threat Update
EMPRES-i platform description

Global Animal Disease Information System

- A global web-based application
- Support:
  - Veterinary services
  - International animal health community
  - FAO
- In facilitating disease information management, exchange and risk analyses on emergent diseases and transboundary animal diseases.

http://empres-i.fao.org
Early Warning and Forecasting

- Real-time alerts (RVF, ASF, HPAI, FMD)
- Rapid Risk Assessment Guidelines
- Animal Diseases Updates (Animal Health Threat Update, MERS-CoV, AI, ASF...)
- Quarterly Early Warning Updates for Food Security (Food Chain Crisis Early Warning Bulletin, Early Warning Early Action Bulletin)
Rift Valley Fever Early Warning Tool (FAO prototype)

- Near-real time monitoring and mapping of areas at risk of RVF vector amplification. Based on Google Earth Engine technology and RVF risk modelling algorithms (i.e., rainfall and vegetation anomalies; dry spells)
Surveillance Evaluation Tool (SET) – Assessment of national AH surveillance capacity

- 13 African countries evaluated in 2017-2018
- Action plans developed jointly with team members from local veterinary services
- Approved reports being posted online
- A follow-up strategy is being implemented through:
  1. Regular monitoring of capacity-building activities
  2. Annual country meetings involving key stakeholders
  3. Conducting SET evaluation every 3-5 years to measure progress

- Several countries have already increased their animal disease surveillance capacities

Capacity building and guidance

Example: FAO H7N9 guidance documents

Available at [http://www.fao.org/h7n9](http://www.fao.org/h7n9):

- Surveillance (2 guidelines)
- Risk assessment (4 assessments)
- Risk management
- Laboratory protocols and algorithms
- Risk communication
- Biosecurity in LBMs
Promoting novel techniques: Pen-side PCR for AI surveillance

• Quick results for quick response / control measures
• Testing at the market/farm/near-by veterinary station
• Eliminating time to transport samples from field to laboratory (2.5 days average)
EMC-AH – A New Way of Working
Modernized and Rebranded

**Vision:**

A world prepared to manage high impact animal health emergencies

**Purpose:**

To enhance country, regional and international capacity to be better prepared to respond to animal health emergencies.
EMC-AH’s Core Functions

Applying the principles of FAO’s Good Emergency Management Practice
Good Emergency Management Practices

- The GEMP is an EM planning tool first designed in 2001 to increase awareness and build capacities of veterinary services. EMC-AH expanded the tool in 2011 as FAO’s Guide on GEMP: The Essentials and initiated GEMP workshops.

- Since 2011
  - A total of 39 GEMP workshops have been conducted worldwide by EMC-AH, including national and regional workshops, and training of trainers.
  - More than 128 countries have the capacity to better prepare, prevent, detect, respond and recover from animal diseases thanks to GEMP workshops.
  - Over 1,000 professionals from multiple sectors, including prime ministers and professionals at the national and local levels have received training.
Preparedness Activities
November 2017 and October 2018

• Supported H7N9 avian influenza emergency preparedness mission Viet Nam, April 2018
• Supported FAO-OIE Rinderpest Secretariat: Led two Regional Rinderpest Tabletop Exercises in Africa and Asia; Co-authored Global Rinderpest Action Plan (published November 2018)
• Sponsored RVF regional technical workshop in eastern Africa, August 2018
• Supported emergency regional consultative meeting on African swine fever risk reduction and preparedness in East Asia, September 2018
• Procured over 1,700 protective coveralls and ancillary PPE
Response - Actions

• Rapid deployment of missions to support emergency response in countries and regions with animal health emergencies.

• Provide animal health technical and operation support to FAO Level 3 emergency response operations.

• Maintain a roster of animal health and emergency management experts to meet country requests for needs assessments, rapid response and surge support.

Laboratory tests during foot and mouth disease outbreak rapid response mission in Mauritania, October 2018
Six rapid response missions organized to address animal disease outbreaks

- African swine fever, Ivory Coast, December, 2017
- Peste des petits ruminants, Burundi, February 2018 in partnership with FAO-OIE PPR Secretariat and others
- Rift Valley fever, South Sudan, July 2018
- Foot and mouth disease, Malawi, July 2018 and Mauritania, October 2018
- Rabies, Malaysia, October 2018

Burundi PPR Vaccination Campaign October 2018
287,520 vaccinated; 10,534 beneficiaries
EMC-AH Response Missions - Examples of Objectives

- Assess epidemiological findings
- Strengthen veterinary laboratory capacity
- Assess field activities (outbreak investigation, sample collection and shipment, tracing movement of animals and animal products, etc.)
- Review response plans and implementation procedures (stop movement and quarantine, culling and disposal, cleaning and disinfection, expanded surveillance, expanded risk communication, vaccination, etc.)
- Support risk communication and awareness-raising
- Facilitate cross-border harmonization and collaboration
- Develop proposals for resources mobilization
- Identify gaps and propose action plans for the short, medium and long term
Incident Coordination

- Benin, African Swine Fever, January 2018
- Iran, Avian Influenza (AI) H5N8, January 2018
- South Sudan, RVF, January 2018
- Congo, Rabies, February 2018
- Togo, AI H5N1, April 2018
- Zambia, FMD, May 2018


- Established FAO RVF Incident Coordination Group for Eastern Africa, RVF, July 2018
OIE, a Key Partner for EMC-AH

• OIE-FAO-INTERPOL inaugural, joint project (2019-2021) aimed to build resilience against agro-terrorism and agro-crime affecting animals. The project will focus on assessing, training and exercising.

• EMC-AH engaged in the OIE Global Conference on Biological Threat Reduction

• EMC-AH joined an OIE mission to the OIE Collaborating Centre for Biological Threat Reduction to explore joint training opportunities
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For a world prepared to manage high impact animal health emergencies

www.fao.org/emergencies

Lee Myers · Lee.Myers@fao.org