African swine fever – FAO response to global challenge

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Background

African swine fever peculiarities:

- ASF virus is stable and resistant and can survive for long time in environment and contaminated pork products
- Not easy to differentiate from other diseases
- No effective vaccine or treatment
- Control based on mass culling of infected or at risk pigs and lack of compensation funds and capacities to implement the stamping out
- Biosecurity is major preventive measure and globally 43% of pigs are raised in backyard self-subsistence farms with low biosecurity
- Not a public health threat
Background: epidemiological situation

Confirmed ASF events in wild and domestic pigs in Europe and Asia, from 01 Jan. to 10 Sept. 2019 (by onset date)

Asia: 9 countries: China, Mongolia, Viet Nam, Cambodia, Democratic People Republic of Korea, Laos, Myanmar, Philippines and the Republic of Korea

Europe: 13 countries Belgium, Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Republic of Moldova, the Russian Federation, Ukraine, Slovakia and Serbia
Background: situation in Asia

China’s pork production will be impacted for years, 2018 - 2021

Number of ASF reported village by region by onset month* in China

Source: Veterinary Bureau, MARA, China
Background: situation in Asia

Market disruptions - spillovers

Changes in prices of meat products in China (2019; Yuan/Kg)

- Pork: 32.4, +37%
- Chicken: 21.9, +8%
- Beef: 72.1, +5%
- Lamb: 70.6, +3%
FAO assistance to member states

- Assessment and early warning
- Capacity building
- Emergency Management Centre for Animal Health (EMC-AH)
- Global and regional coordination
- Mapping and modelling
- Awareness raising
Assessment and early warning

2007 - **ASF in Georgia**
2008 - **ASF in the Caucasus**
2009 - **ASF spread in the Russian Federation and the risk for the region**
2010 - **FAO takes a close look at the threat of ASF introduction into Eastern Europe**
2012 - **ASF recent developments - timely updates**
2013 - **ASF in the Russian Federation: risk factors for Europe and beyond**
2018 - **African Swine Fever threatens People's Republic of China**
Capacity building

Epidemiology Trainings: Ukraine: (May 2009; > 50 participants); and Belarus (May 2009; > 20 participants)

Lab Trainings: Ukraine (March 2010; 16 diagnosticians from Belarus, Moldova and Ukraine); and Kazakhstan (with CISA-INIA; Sept 2013; 10 participants)

Collection & identification of Ornithodoros ticks: Georgia, June 2013 (with CIRAD): 10 participants from Georgia (2), Armenia (1), Kazakhstan (1), Russia (2), Bulgaria (2), and Ukraine (1)

Epi & Diagnosis: Italy, Nov 2013 (with IZS-UM): 9 participants from Georgia (1), Armenia (2), Belarus (2), Russia (1), Moldova (1), Ukraine (2) and Serbia (1)

Contribute to EC’s BTSF and GF-TADS workshops

Regional and national training on ASF management in wild boars – Lithuania (2017), Serbia (2019)
Emergency Management Center for Animal Health (EMC-AH) missions

- EMC (previously CMC) was first launched in 2006 at FAO HQ, Rome, in partnership with the OIE.

- EMC-AH also identifies needs to be addressed and provides platform, tools and support to countries’, regional and international emergency preparedness including prevention, detection, response and recovery.

- Mission will be deployed only by governments’ requests.

GEMP: Good Emergency Management Practice
EMC-AH missions

Emergency Preparedness Missions

Encourage and assist countries to take early action by conducting outreach and deploying early action missions to countries facing an imminent animal health risk, including a founded rumor or suspicion. Technical guidance and training conducted during such missions.

Emergency Response Missions

Deploy rapid response missions to assist countries who are responding to outbreaks.

### EMC-AH African swine fever missions in 2019

<table>
<thead>
<tr>
<th>Country</th>
<th>When</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>May</td>
<td>Response</td>
</tr>
<tr>
<td>Viet Nam</td>
<td>March</td>
<td>Response</td>
</tr>
<tr>
<td>Mongolia</td>
<td>February</td>
<td>Response</td>
</tr>
<tr>
<td>Lao People’s Democratic Republic</td>
<td>June</td>
<td>Alert</td>
</tr>
<tr>
<td>Myanmar</td>
<td>February</td>
<td>Alert</td>
</tr>
</tbody>
</table>

**Coming up:** Papua New Guinea, ASF Alert mission, October 2019
EMC-AH missions - Common Findings

**Strengths**

- High political commitment of government on ASF control
- Recognize high risk of introduction or spread of ASF
- Existing laboratory capacity and network
- Existing workforce trained in epidemiology
- Close collaboration with international organizations and neighbor countries

**Weakness**

- Limited information for value chain and risk pathways including the magnitude and practices of swill feeding and wild boar farming
- Complicate pig production systems and limited biosecurity practices along the value chains
- Lack of:
  - Legal framework
  - Compensation policy
  - Risk communication and advocacy strategy
  - SOPs for outbreak containment
  - Stockpiles
- Not clear incident command system
- Limited funding resources especially for compensation budget
Current state FAO response through Technical Cooperation Programme (TCP)

**ASF Projects Africa:**
- Regional project West Africa (donor- Ireland 300,000 USD)
- TCP Ivory Coast (300,000 USD)

**ASF projects Europe:**
- Regional TCP project Western Balkans (500,000 USD)

**ASF projects for South East Asia:**
- Regional project South East Asia (500,000 USD)

**Finalized Projects:** TCPs 2007-2017: Georgia, Armenia, China, Ukraine, Belarus, Moldova (TCPf)
Ad hoc meetings

Emergency Regional Consultative Meeting on African Swine Fever risk reduction and preparedness 5-7 September 2018, Bangkok, Thailand

African Swine Fever Emergency Preparedness Workshop China, Laos, Myanmar and Viet Nam 22-23 November 2018, Beijing, China
Global and regional coordination

Global Initiative

- Technical Item at the 87th OIE General Session (May 2019)

- Jointly presented by FAO/OIE

- Outline
  - Global ASF situation
  - Socio-economic impact
  - Key Epi features and strategic control challenges
  - Regional Initiatives
  - Global Initiative
Global and regional coordination

Standing Group of Experts on ASF for Europe

[Link to Standing Group of Experts on ASF for Europe](https://web.oie.int/RR-Europe/eng/Regprog/en_GF_TADS%20-%20Standing%20Group%20ASF.htm#ASF14)

Standing Group of Experts on ASF for Asia

[Link to Standing Group of Experts on ASF for Asia](https://rr-asia.oie.int/activities/regional-activities/gf-tads-framework/standing-group-of-experts-on ASF/)

- 1st SGE-ASF Asia meeting held with the International symposium on ASF in Beijing, China, April 2019.  
  *Focused on epidemiology and surveillance for early detection and outbreak management*

- 2nd SGE-ASF Asia meeting, Tokyo, Japan July 2019.  
  *Focused on biosecurity issues*
Global and regional coordination

Evidence based planning for longer term ASF prevention and control

Operational research to better understand ASF for efficient outbreak containment

Capacities and regional networks established to detect, control and prevent ASF are enhanced

Emergency management missions

African Swine Fever Emergency Preparedness and Response in Asia
Why map host populations and systems

- Epidemiological analysis (denominator data)
- Risk mapping
  - data-driven machine-learning
  - multi-criteria decision analysis (MCDA)
- Modelling disease spread

In order to ...

- estimate numbers of animals at risk
- identify vulnerable livestock-keepers
- estimate economic costs
- help prioritize and plan interventions
- communicate risk
Mapping and modelling

Global Pig distribution
Mapping production systems

Extensive

Semi-intensive

Intensive
Mapping and modelling

Proportion of backyard pigs

GDP per capita (PPP; log 19(x))

Proportion of intensive pigs

GDP per capita (PPP; log 19(x))

2.5  3.0  3.5  4.0  4.5  5.0

250 million
100 million
50 million
10 million

2.5  3.0  3.5  4.0  4.5  5.0

Intensive
Semi-intensive
Extensive

Yunnan
Sichuan
Jiangsu
Shanghai

MMR
VNM
IND
BRA
CHN
USA
BEL
Early warnings & awareness raising

1. **Weekly updates on the ASF situation in Asia**
2. **AGAH/EMPRES web-site – ASF Portal**
3. **Alerts on ASF, e.g. Chinese New Year**
4. **Other:**
   1. ASF Portal - 29th issue of the quarterly Food Chain Crisis Early Warning Bulletin
   2. Early Warning Early Action report on food security and agriculture

Awareness materials

- Fully editable format (PowerPoint) that allows to quickly adapt, translate, add logos, change pictures, etc. when faced with an animal health emergency.
- Video: [https://www.youtube.com/watch?v=-eebh7uXaag&t=15s](https://www.youtube.com/watch?v=-eebh7uXaag&t=15s)
- ASF podcasts: interviews with FAO CVO, Juan Lubroth, and EMC-AH Manager, Ludovic Plée (EN and FR)
Manuals

- **Good practices for biosecurity in the pig sector** (EN, FR, SP, RU)  

- **Preparation of ASF contingency plans** (EN, FR, SP, RU, GEO, ARM)  

- **Recognizing ASF - A Field manual** (EN, RU, CH, SR, LT) –  
  [http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/](http://www.fao.org/documents/card/en/c/bd35c569-752e-4b57-892e-e3e2e0ee0c9c/)

- **GF-TADs Europe joint publication FAO/OIE/EC - African Swine Fever in wild boar - ecology and biosecurity**  
Next steps

ASF Global Secretariat (AGS) and ASF Global Standing Group of Experts (AGSGE)

- Harmonization and cohesion of regional control strategies
- Analysis, forecast, provide early warning and awareness
- Policy dialogue and advocacy
- Provide technical recommendations
- Capacity development/promote best practices
- Cost-benefit analysis
- Explore public-private partnership opportunities and foster its implementation for ASF prevention and control
Acknowledgement

- Juan Lubroth, Andriy Rozstalnyy, Timothy Robinson, Marius Gilbert, and Sergei Khomenko Regionalization of Trade with Respect to ASF: Perspectives In support of ASF prevention and control, the Food and Agriculture Organization (FAO) of the United Nations, HQs, Italy
- Ludovic Plee, Lionel Gbaguidi, Lynam, Eibhlinn, Emergency Management Centre for Animal Health (EMC-AH), FAO HQs
- Rabobank, African Swine Fever- A Global Update: Rabobank’s View on Opportunities and Threats, August 22, 2019
- Wantanee Kalpravidh, Regional Manager, Emergency Center for Transboundary Animal Disease for Asia and the Pacific for the Food and Agriculture Organization (FAO) of the United Nations in Bangkok, Thailand and Caitlin Holley, Regional Project Coordinator, OIE Regional Representation for Asia and the Pacific, Tokyo, Japan
- Alejandro Acosta, Livestock Policy Officer, AGAL, HQs, Italy
祝大家中秋节快乐

Wishes for Happy Mid-Autumn Festival in China
The public starts to send wishes using pork meat as pork price is very high