



World  
Organisation  
for Animal  
Health



# Update on African swine fever (ASF)

Dr Lesa Thompson

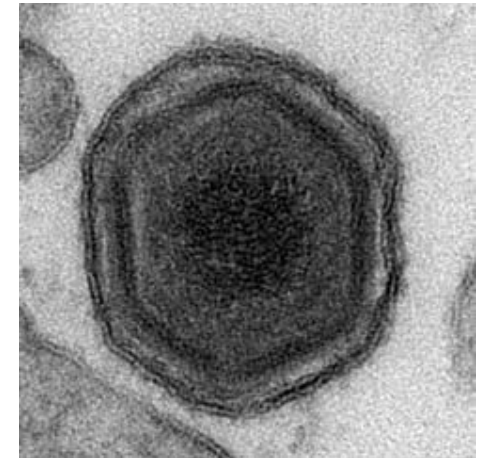
*Regional Veterinary Officer*

*OIE Regional Representation for Asia and the Pacific*



## African swine fever (ASF)

- Large DNA virus, *Asfivirus*, sole member of *Asfarviridae*
- Unrelated to classical swine fever (CSF) although signs may be similar
- ASF is a contagious haemorrhagic viral disease of domestic & wild pigs
- Serious economic & production losses

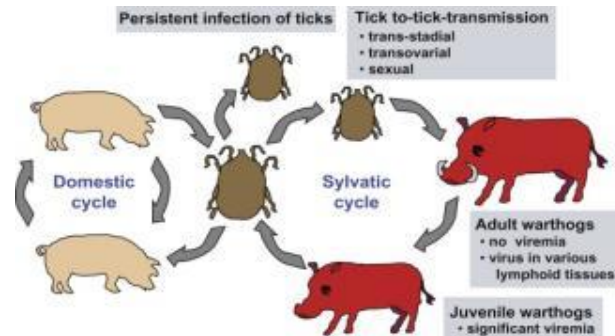


**ASF is listed as notifiable in the World Organisation for Animal Health (OIE) Terrestrial Animal Health Code & must therefore be reported to the OIE.**



# ASF transmission

- Transmission
  - Direct contact with **infected domestic or wild pigs**, live or dead
  - Indirect contact, through **ingestion of contaminated material** (e.g. food waste, feed or garbage containing pork products)
  - Contaminated fomites (e.g. shoes, clothes, vehicles, knives, equipment)
  - Biological vectors (soft ticks of the genus *Ornithodoros*)



<https://www.sciencedirect.com/science/article/pii/B9780123751584000080>



## Clinical signs

- **Various**
  - **High fever**
  - Depression
  - Anorexia & loss of appetite
  - **Haemorrhages in skin** (redness on ears, abdomen, legs)
  - Abortion
  - Cyanosis
  - Vomiting diarrhea
  - Death within 6-13 days (up to 20 days)
  - **Mortality < 100%**



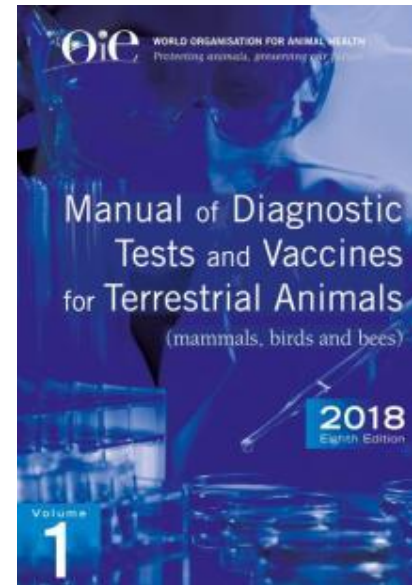
Manan VatsyanyanaAFP/Getty Images





## Diagnosis

- Suspect based on clinical signs
- Confirmation with laboratory tests (particularly to differentiate from CSF)
  - OIE Reference Laboratories for ASF: South Africa, Spain, UK





# ASF outbreaks notified to the OIE since 2005 (cumulative)

2005

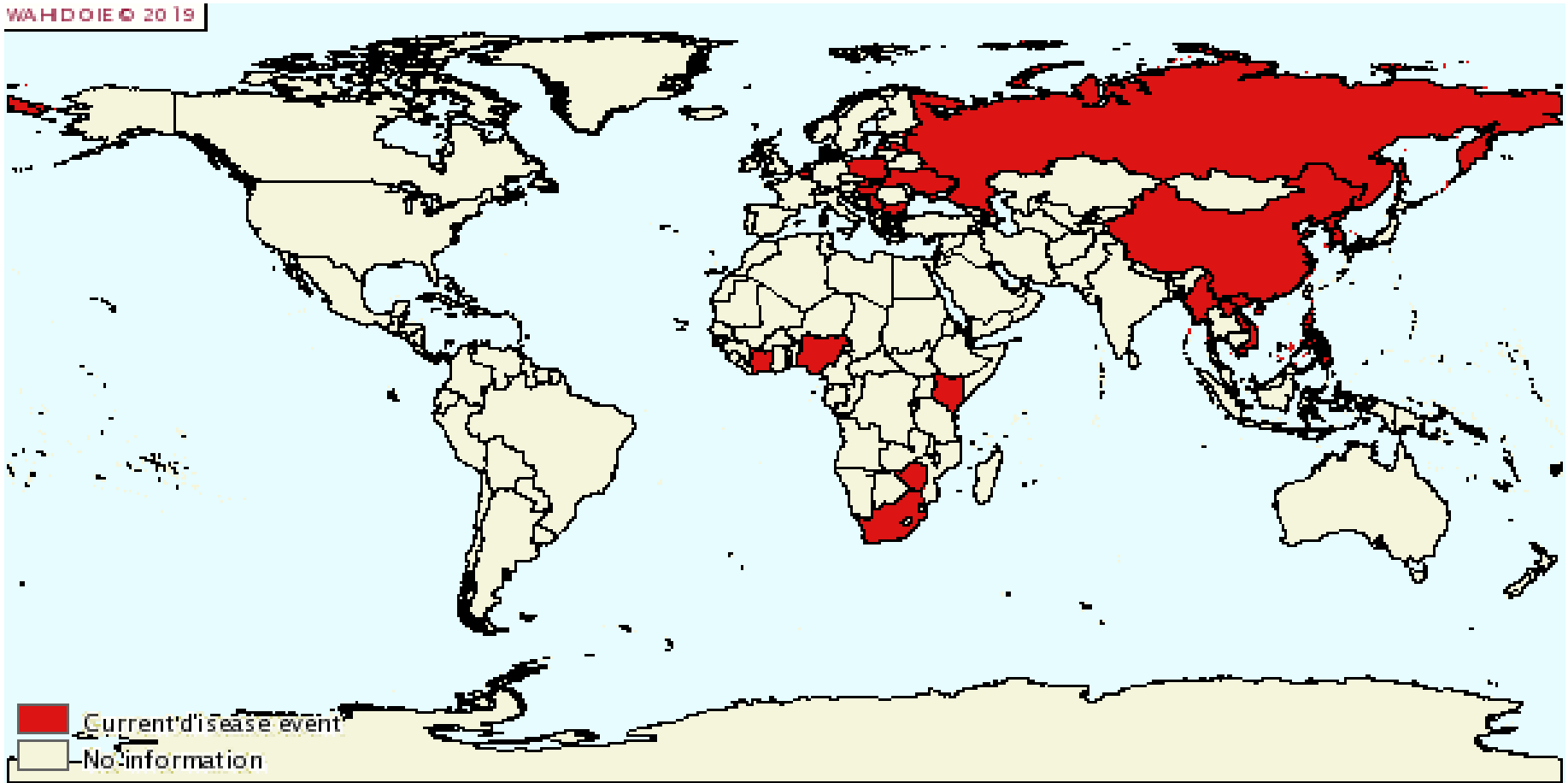




# Global situation of ASF

Jul - Dec 2019: current disease events shown

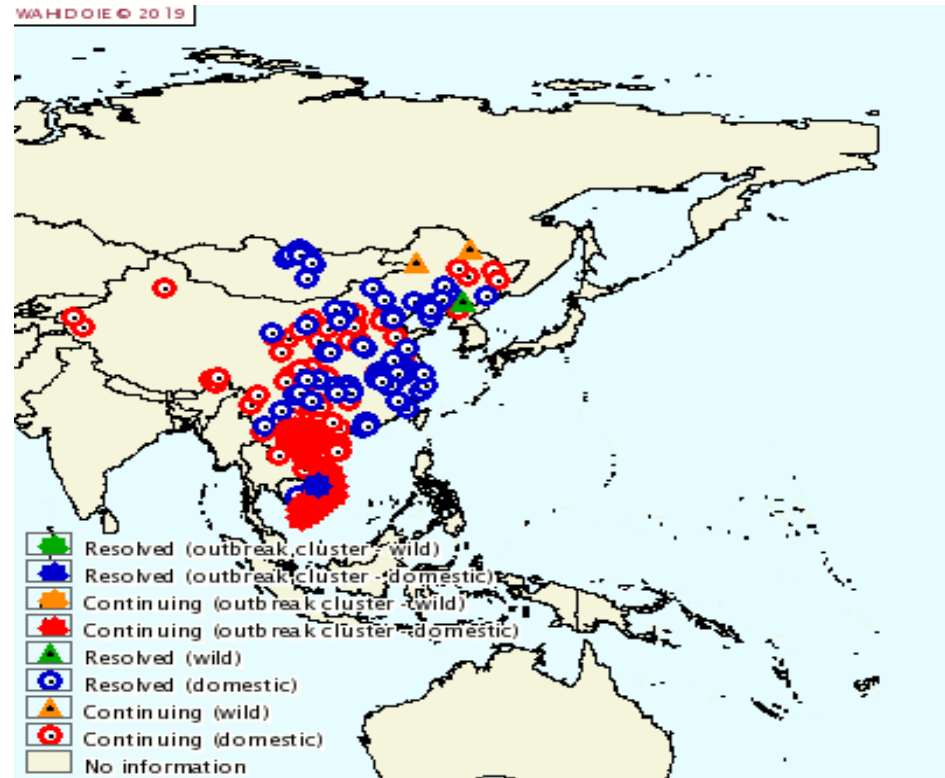
WHA/DOIE © 2019





## Regional situation of ASF

- China: **First ASF report in Asia on 3 August 2018**
- Since then, ASF confirmed in **many other countries:** Cambodia, Hong Kong, Korea (DPRK), Korea (ROK), Lao PDR, Mongolia, Myanmar, Philippines, Timor-Leste & Vietnam.

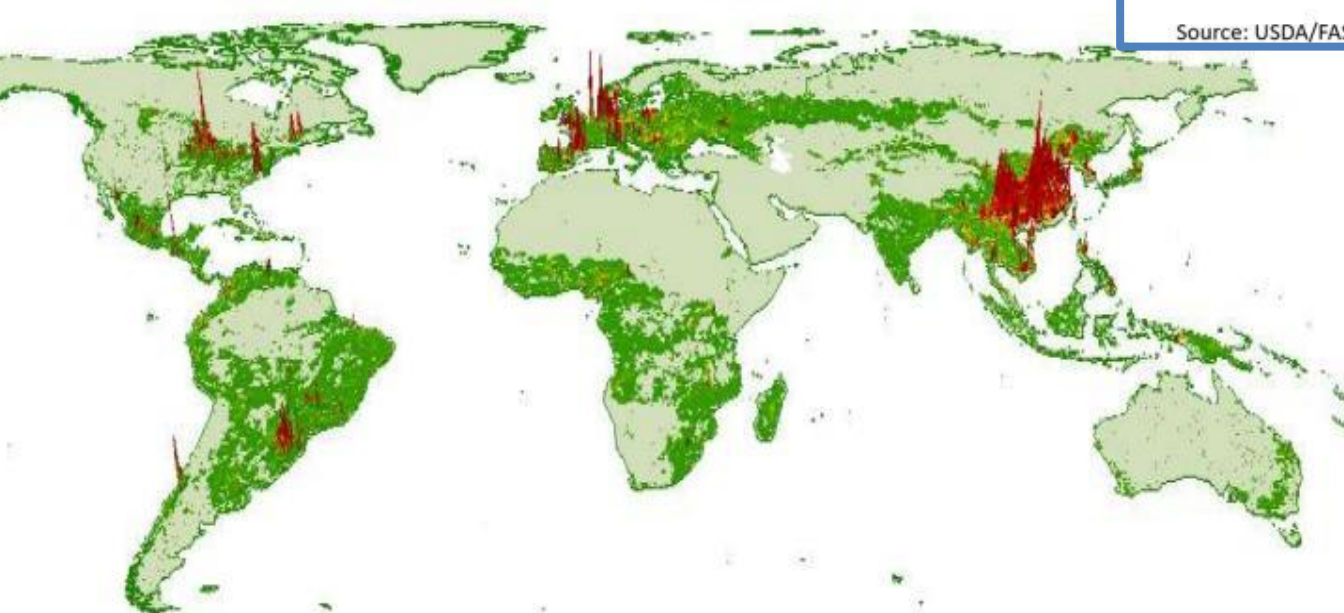
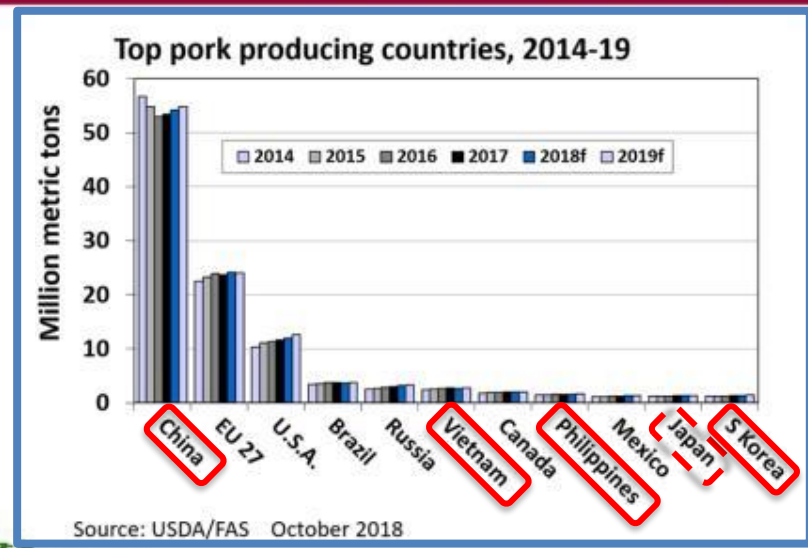


*ASF outbreaks since August 2018*





At least 60% of the world's domestic pig population is concentrated in east and southeast Asia.



High impacts on economic losses and food security



# Cumulative reported outbreaks & animal losses

Country	Total out-breaks	On-going out-breaks	% administrative divisions affected	Total animal losses in previous update	Total animal losses in this update
<i>Cambodia</i>	13	0	20 (5/25)	3 673	3 673
<i>China (People's Rep. of)</i>	160	57	100 (31/31)	378 716	378 764
<i>Hong Kong (SAR-PRC)</i>	3	0	100 (1/1)	4 163	4 163
<i>Korea (Dem. People's Rep. of)</i>	1	1	9 (1/11)	99	99
<i>Korea (Rep. of)</i>	28	28	17 (3/18)	26 999	26 999
<i>Laos</i>	141	141	94 (17/18)	38 773	38 773
<i>Mongolia</i>	11	0	29 (6/21)	2 855	2 855
<i>Myanmar</i>	4	4	7 (1/15)	72	72
<i>Philippines</i>	7	7	1 (1/83)	7 952	7 952
<i>Russia*</i>	59 (221)	16 (22)	4 (3/81) 30 (24/81)	2 674 (340 353)	2 731 (340 483)
<i>Timor-Leste</i>	100	100	100 (1/1)	405	405
<i>Vietnam</i>	6 083	6 083	100 (63/63)	3 796 025	3 796 025
<b>TOTAL ASIA</b>	<b>6,610</b>	<b>6,437</b>	-	<b>4,262,406</b>	<b>4,262,511</b>

**Table 1.** Cumulative reported outbreaks, administrative divisions affected and total animal losses due to ASF outbreaks by country/territory *since 2018*.

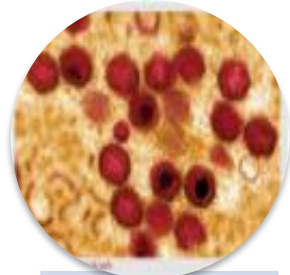
\*NOTE: the numbers in black correspond to the outbreaks reported in Russia within the Asian continent and their impact. The numbers in grey were calculated based on what was reported in the whole country.



# Problems with control of ASF



Not easy to differentiate from other swine diseases



African Swine Fever



Virus is relatively stable and resistant so can survive long time in environment and contaminated pork products



No effective treatment or vaccine



No public health or food safety concerns



## Prevention

- **Early detection & biosecurity**
- **Border vigilance**
- **Enhanced awareness among stakeholders**
  - Enhanced on-farm biosecurity measures
  - Enhanced national sanitary measures on waste disposal from aircrafts/vessels/passengers
- **Enhanced passive surveillance & immediate reporting**





## Control

- **Strict biosecurity & quarantine**
- **Movement control**
- **Culling**
- **Compensation**
  
- OIE international standards for risk management of TADs to **reduce the risk of exporting disease** to trading partners



## Challenges identified as specific for Asia proving that ASF control is “not one size fits all”

- **Pig production and pig value chains are complex**
  - **Dense population** of pigs in east and southeast Asia
  - Large numbers of **small-scale pig farming** with low biosecurity
  - **Complex value chains** that operate across national borders
  - **Cultural practices** around pig use and food consumption may create additional risk pathways
  - Globalisation has made it easy for people and products to **travel** rapidly and over long distances



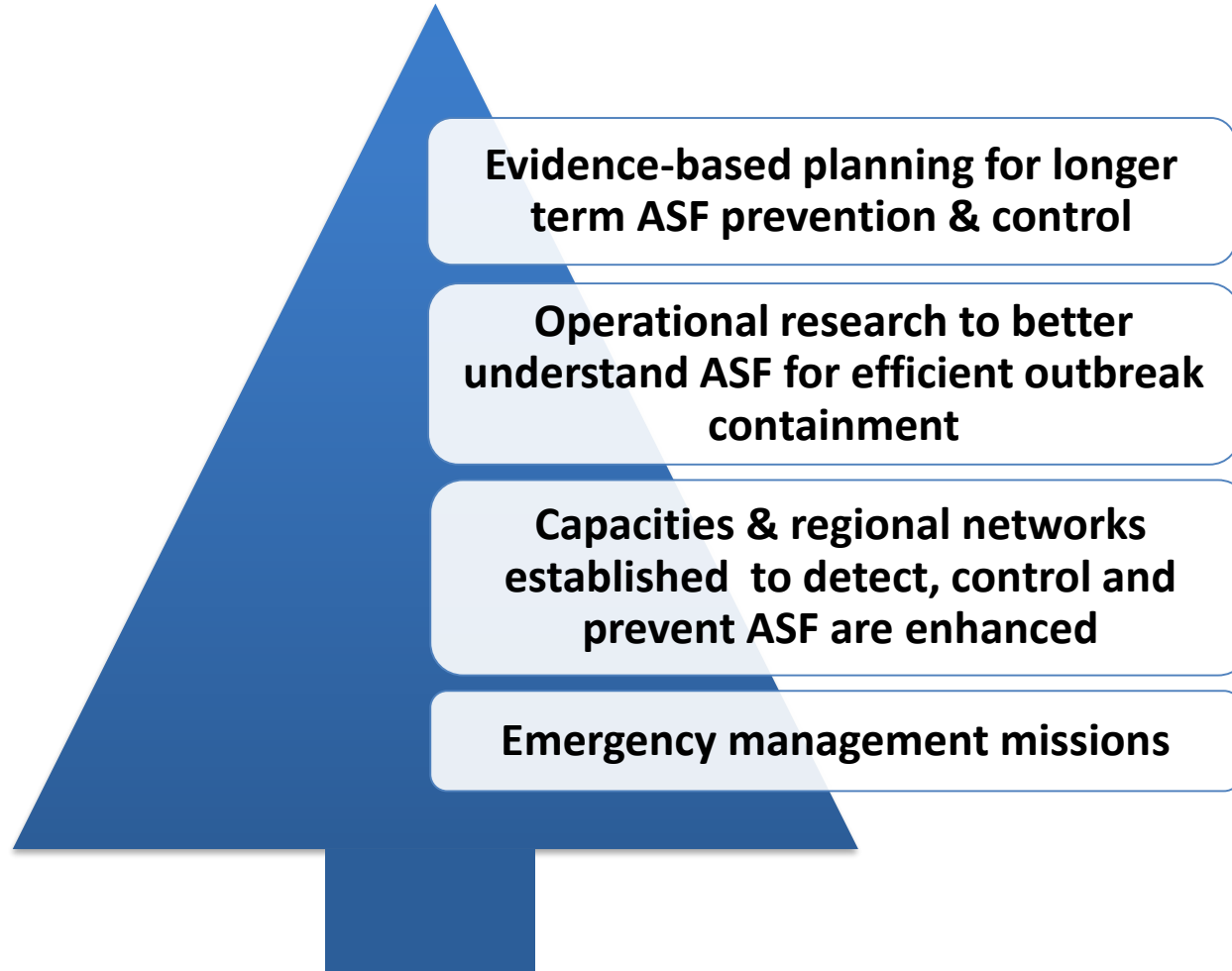
# ASF Regional Collaborative Framework for Southeast and East Asia

**Objective: To prevent the spread and mitigate the impacts of ASF in SE Asia (and E Asia)**

<p><b>1 Better understanding of ASF</b></p> <ul style="list-style-type: none"> <li>• Research gaps and priorities</li> <li>• Operational research to support evidence based planning and decisions such as value chain mapping</li> </ul>	<p><b>2 Enhanced risk-based strategy and implementation for ASF prevention and control</b></p> <ul style="list-style-type: none"> <li>• Surveillance</li> <li>• Risk assessment</li> <li>• Risk mitigations in immediate, medium and longer terms</li> </ul>	<p><b>3 Strengthened policy and enabling environment</b></p> <ul style="list-style-type: none"> <li>• Human and financial resources to respond to ASF</li> <li>• Legislations and regulatory frameworks</li> </ul>	<p><b>4 Enhanced risk communication and policy advocacy</b></p> <ul style="list-style-type: none"> <li>• Communication and advocacy strategies for specific stakeholders</li> <li>• Enhanced veterinary services' communication</li> <li>• Policy advocacy</li> </ul>
<p><b>5 Developed required capacity</b></p> <p><u>Technical capacity:</u> Laboratory Field investigation and response</p> <p><u>Operational capacity:</u> Emergency preparedness</p>		<p><b>6 Enhanced collaboration and coordination</b></p> <p>Multi-sectoral - Public-private partnerships, inter-ministries, academia, Multi-lateral – subregional, regional, global, interregional Multi-disciplinary approach – research networks</p>	



# African Swine Fever Emergency Preparedness and Response in Asia







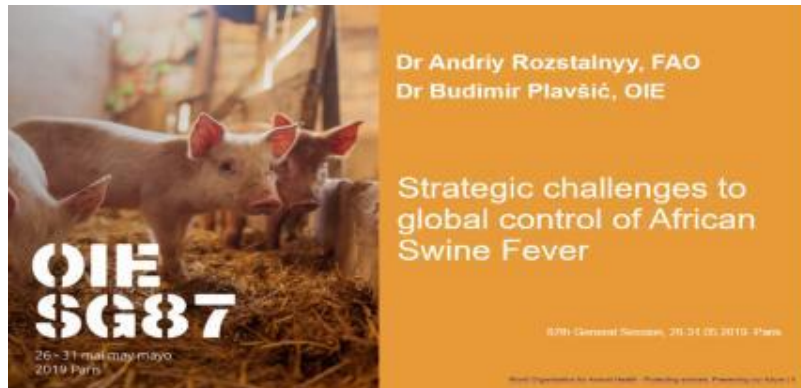
## Standing Group of Experts on ASF for Asia

- Enhance cooperation and **information sharing** between Asia and Europe on ASF
- Improve **understanding of ASF**, how it may evolve & short-/long-term impacts
- To **facilitate coordination** of ASF-related activities, FAO & OIE are working with members & other partners using GF-TADs mechanism
  
- **Priority topics**
  - ASF epidemiology, including risk-based surveillance
  - Biosecurity
  - Border control measures
  - ASF risk communication



# Global Initiative

- **Technical Item at the 87th OIE General Session (May 2019)**  
*Strategic challenges to global control of African Swine Fever*



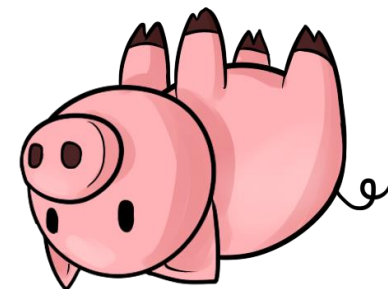
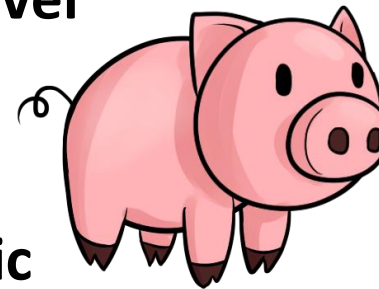
- Jointly presented by FAO/OIE
- Outline
  - Global ASF situation
  - Socio-economic impact
  - Key epidemiological features & strategic control challenges
  - Regional Initiatives
  - Global Initiative





## Gaps to be addressed

- Strengthening of **National Veterinary Services**
- Support evidence-based **planning & application of capacities at field level**
- Development & availability of effective, potent & safe **vaccine**
- Development of **reliable diagnostic tools**, including rapid field DIVA test





## Key points

- Due to possible global socio-economic impacts, the ASF control requires **shared responsibility**
  - **Political and technical commitment, transparency and sharing information (including timely notification)**
- ASF situation in Asia is still evolving and **expected to continue to spread** due to complexity and diversified production systems and value chains





# OIE communication campaign



## Commercial pig farmers

[https://trello-attachments.s3.amazonaws.com/5c501da3a4ba4c2c50ce308d/5c5c01143fa34d4525635e2f/3ece76b39e13320248a3520725644fd4/EN\\_GIF\\_CommercialPigFarms.mp4](https://trello-attachments.s3.amazonaws.com/5c501da3a4ba4c2c50ce308d/5c5c01143fa34d4525635e2f/3ece76b39e13320248a3520725644fd4/EN_GIF_CommercialPigFarms.mp4)

**AFRICAN SWINE FEVER**

× **Travellers**  
Don't be the carrier of a deadly pig disease

**ASF kills pigs**



# Awareness materials in OIE Members



Australia



China, P.R.



Korea, R.O.



Thailand

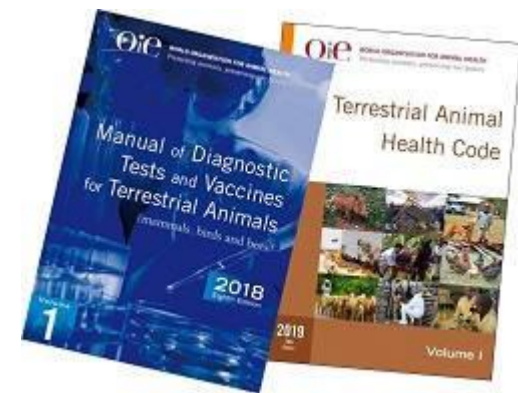


Japan



## Other ASF information & activities

- Standing Group of Experts on ASF for Asia
- OIE Terrestrial Animal Health Code
  - Establishing a country, zone & compartment free of ASF
  - Recommendations relating to trade of pork & pork products
- OIE Manual of Diagnostic Tests and Vaccines for Terrestrial Animals
- ASF-related webinars
- Other resources are available online at OIE regional website





**WORLD ORGANISATION FOR ANIMAL HEALTH**  
*Protecting animals, preserving our future*



**GF-TADs**

GLOBAL FRAMEWORK FOR THE  
PROGRESSIVE CONTROL OF  
TRANSBOUNDARY ANIMAL DISEASES



**Food and Agriculture Organization  
of the United Nations**





**ASF**  
**kills**  
**pigs**

**AFRICAN SWINE FEVER**

**Don't be the carrier of a deadly pig disease** 

