

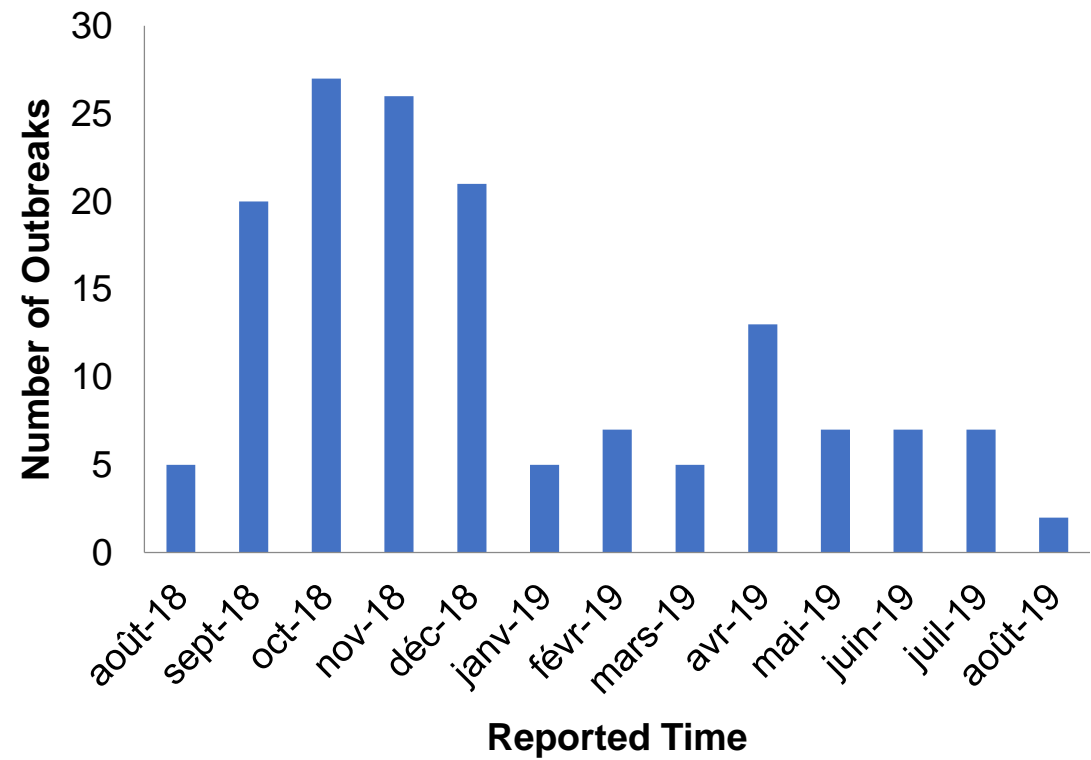
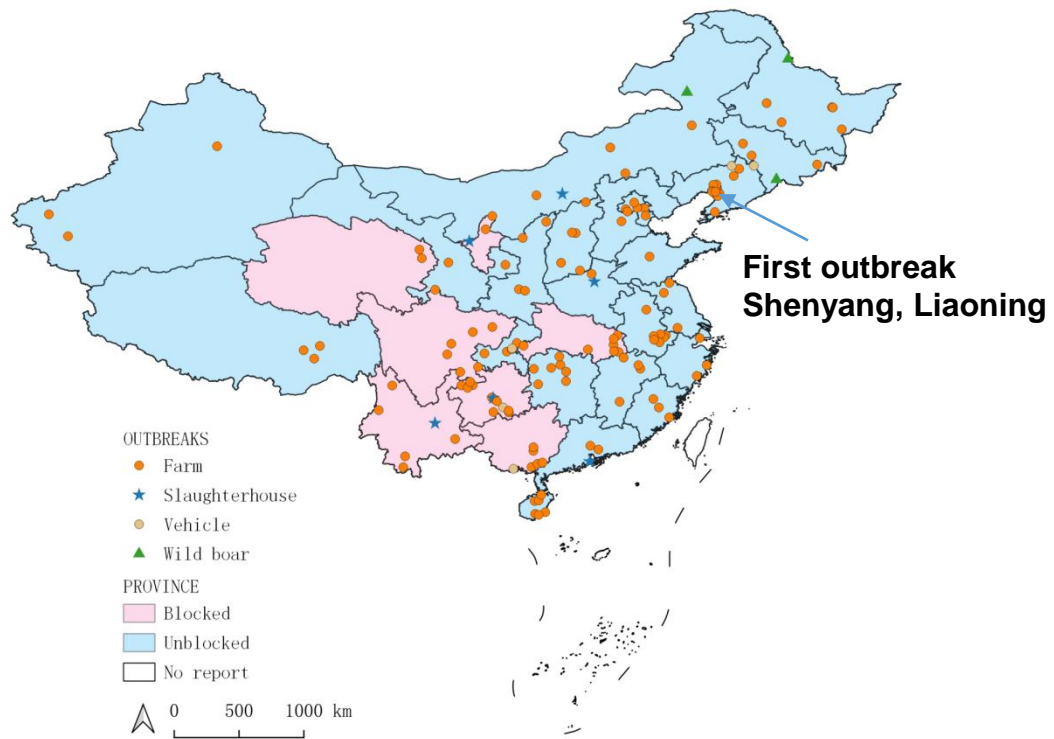
Current situation and control measures of ASF in China

Dr. Gaolu

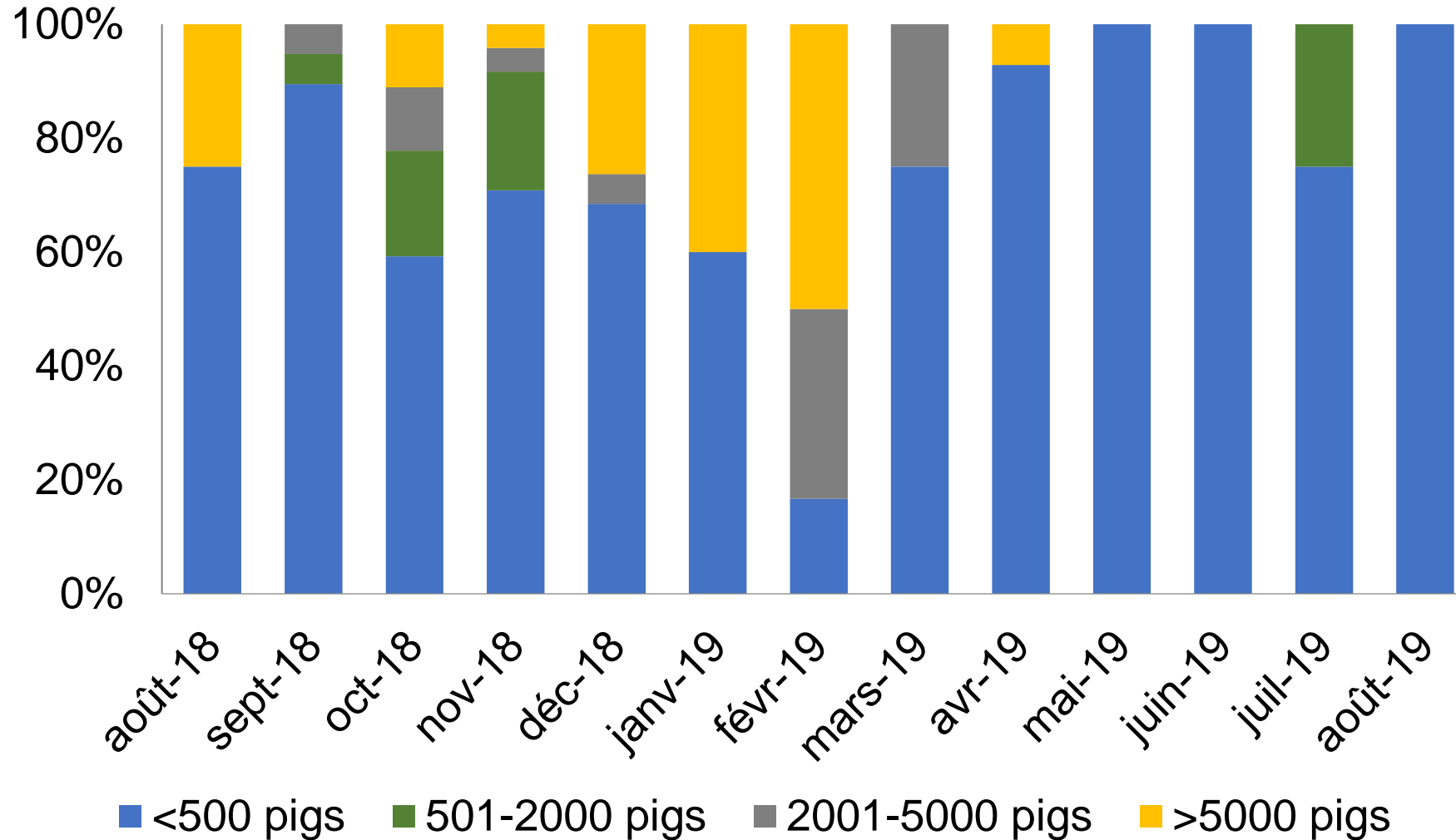
China Animal Health and Epidemiology Center (CAHEC)

2019.09.11

153 outbreaks in 31 provinces (as of 26th August)

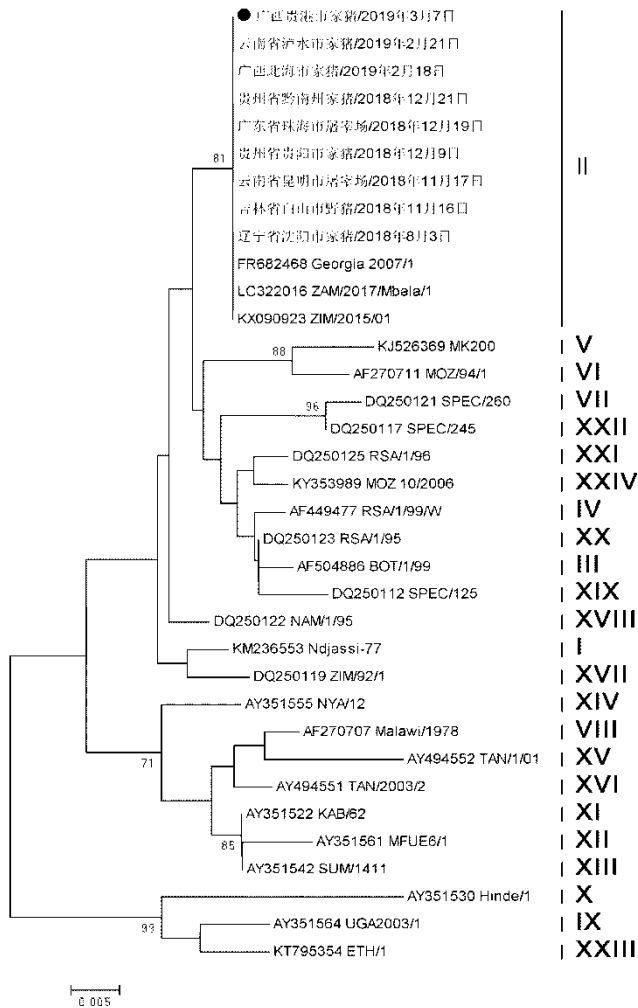


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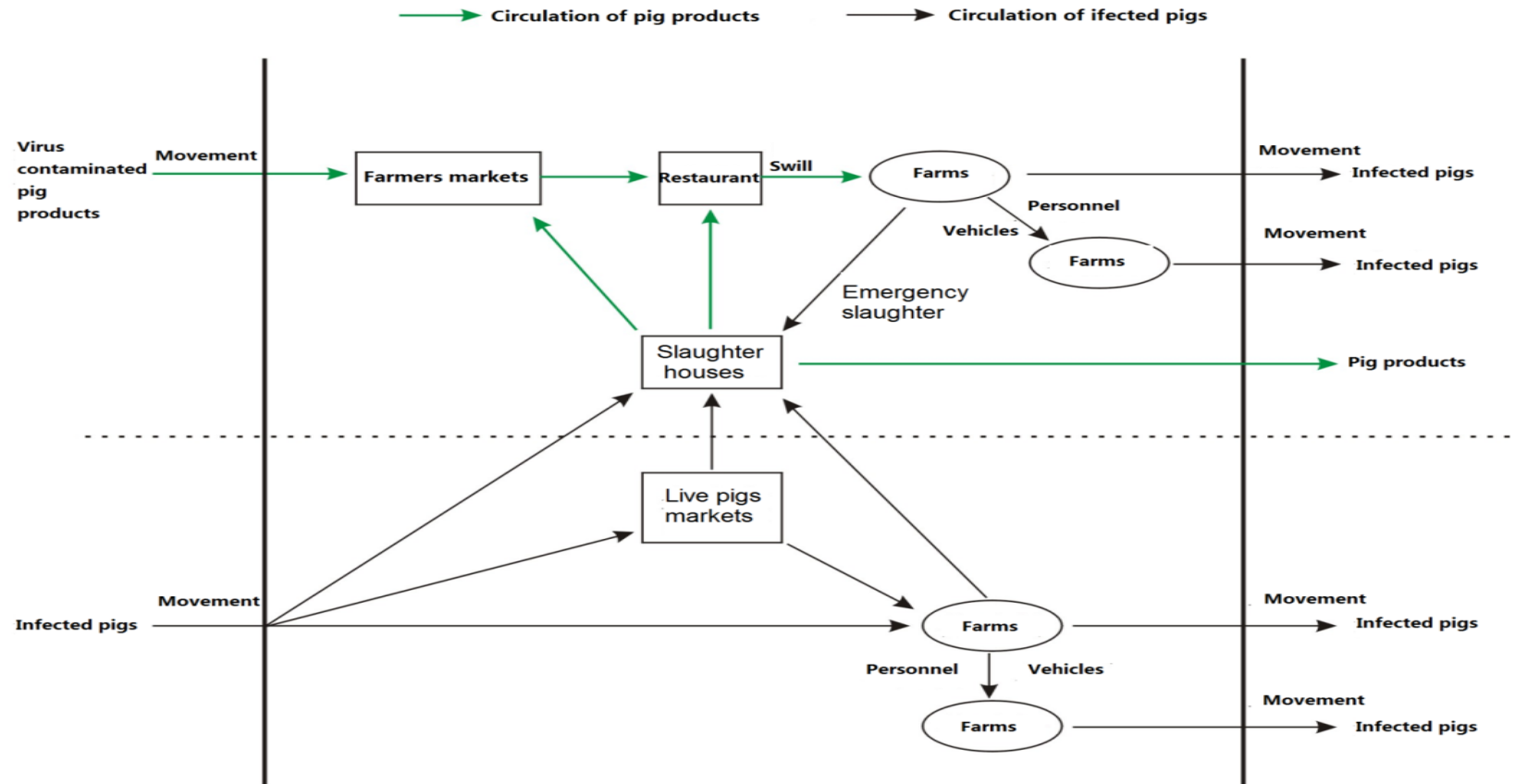
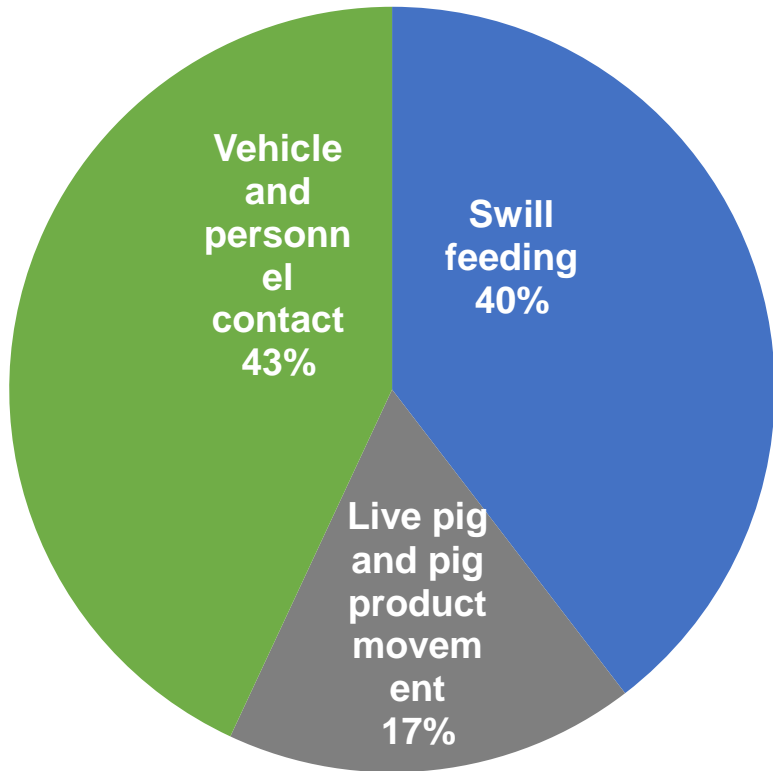
3 different strains

IGR/TRS Sequence Alignment Analysis



Country /Region	Strain	IGR/TRS sequence (173R-1329L)	Type
China	Guangxi- Guigang, domestic pig 2019/3/7	GGAATATATAGGAATATATAGGAATATATAGAAATATATA	III
	Liaoning-Shenbei, domestic pig 2018/8/3	GGAATATATAGGAATATATA-----GAAATATATA	II
	Jilin-Baishan, wild boar 2018/11/16	GGAATATATA-----GAAATATATA	I
Georgia	Georgia 2007/1	GGAATATATA-----GAAATATATA	I
	Irkutsk 2017	GGAATATATA-----GAAATATATA	I
	Rostov09	GGAATATATA-----GAAATATATA	I
Russia	Lipetsk2016	GGAATATATAGGAATATATA-----GAAATATATA	II
	Voronezh 2016	GGAATATATAGGAATATATA-----GAAATATATA	II
	Estonia 2014	GGAATATATAGGAATATATA-----GAAATATATA	II
	Bel13/Grodno	GGAATATATAGGAATATATA-----GAAATATATA	II
Europe	Ukr12/Zapo	GGAATATATAGGAATATATA-----GAAATATATA	II
	LT14/1490	GGAATATATAGGAATATATA-----GAAATATATA	II
	Pol14/Sz	GGAATATATAGGAATATATA-----GAAATATATA	II
	Africa	ZAM/2017/Mbala/1 ZAM/13/Mbala	No information

Identify transmission patterns and risk factors



Part I

The introduction of ASF



Smuggling



About 170,000 tons of tons of risk offal smuggled to China

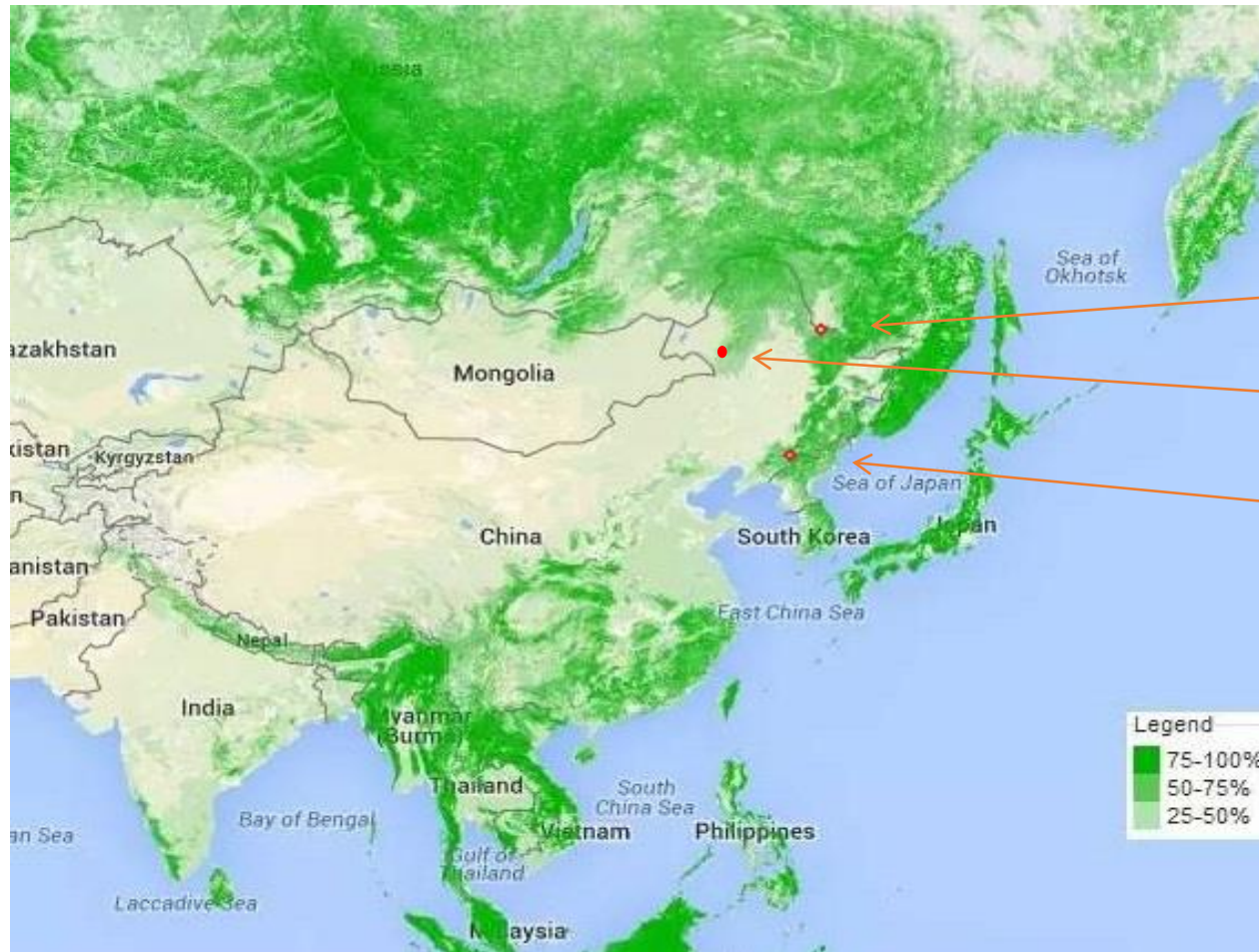
Passengers carry-on

Passengers carry-on

Found 2,650 person-time, 4,510 kg pig product from countries with ASF outbreaks (From Aug. to November 2018)



Wild boars



Part II

Control measures of ASF



Control source of
infection

Cut off the route of
transmission

Protecting
susceptible animals

Control source of infection

① Reinforcing screening and surveillance

- National wide screening

Farms, markets, slaughterhouses, disposal factories

- Joint-survey for wild boar, no suspected case found.



Control source of infection

② Optimizing contingency plan

Sep 20, 2017

Contingency plan for ASF



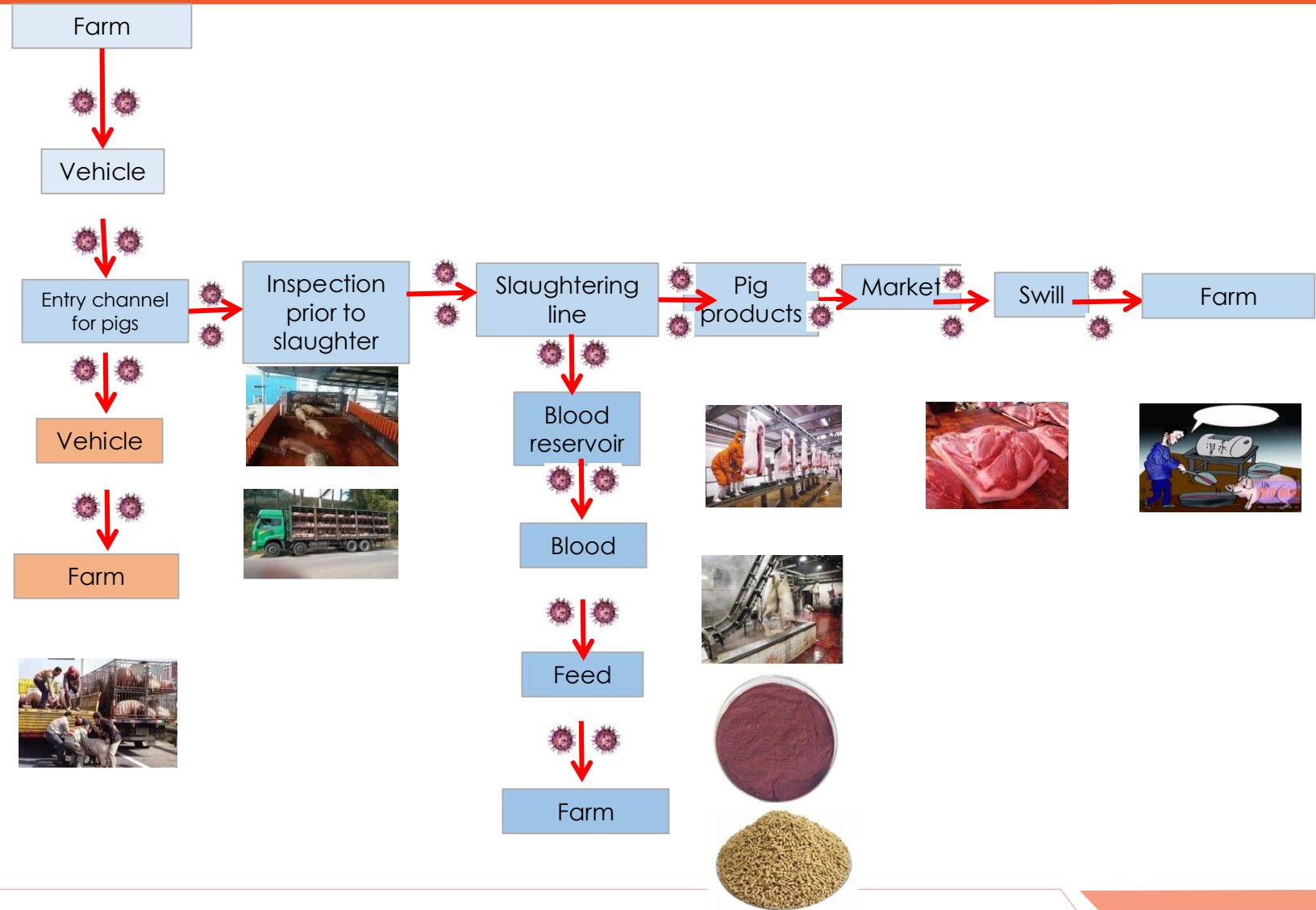
Jan 24, 2019

Contingency plan for ASF(2019)

Control source of infection

Strengthening inspection in slaughtering

Virus circulation
along the value
chain



Control source of infection

Strengthening inspection in slaughtering

18 Dec, 2018 : Enforcement on stopping illegal slaughtering

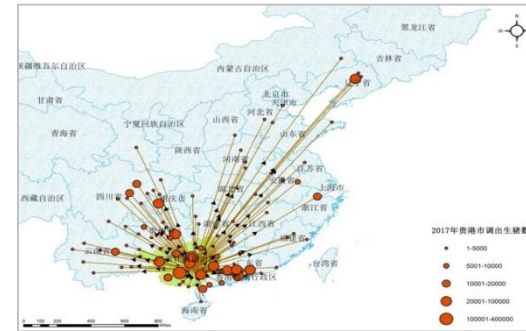
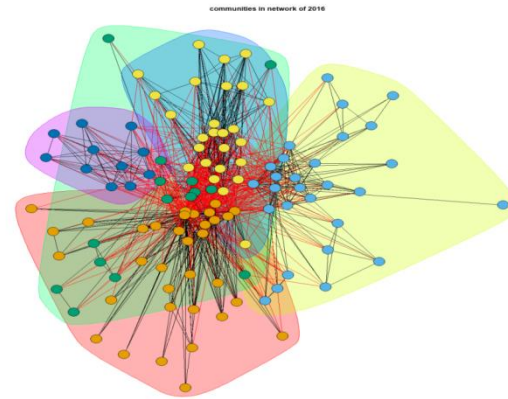
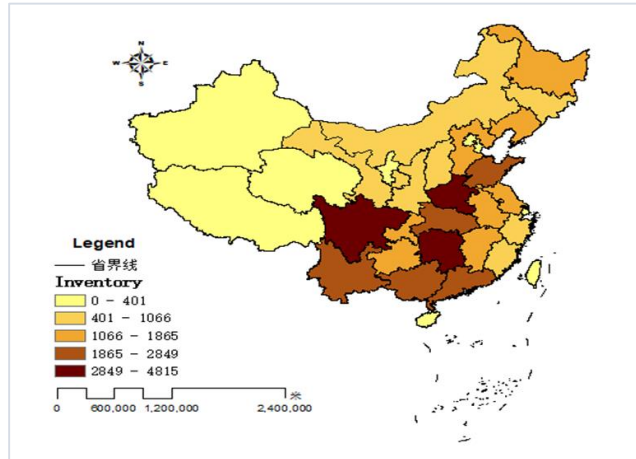
1st Feb.2019: Test of ASF in slaughterhouse required

- Test **every batch** of live pigs arrived
- Issue animal health certificates for products based on lab test
- Thoroughly cleansing and disinfection required

13 Mar, 2019: Subsidies for safe disposal of contaminated products

Cut off the route of transmission

① Movement control



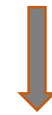
Complex live pig trade and movement networks

Cut off the route of transmission

① Movement control

- **8 Aug**— Restrict movement of live pigs and risk products for the province having ASF outbreaks
- **11 Sep**— Restrict movement of live pigs for the province having ASF outbreaks
- Closing live pig markets of province with ASF outbreaks
- **18 Oct**— Suspend the policy of free toll fee for transport of live pigs
- **27 Dec**— Direct trade and transport between qualified farms and slaughterhouse

35.3%



17%



Cut off the route of transmission

② Management of vehicles

No. 79 Notice MARA (31 Oct. 2018)

- Proper condition during the transportation (e.g. anti-leakage, adequate space, enough drinking water)
- GPS in the vehicle for cross-province movement tracing
- Strict cleaning and disinfection before and after loading



Cut off the route of transmission

③ In-depth reform in animal health management

- Animal health inspection
certificates based on lab test
- Implementing **zoning approach**
- Strengthening the **broker management**

我国非洲猪瘟分区防控示意图



Protecting susceptible animals

① Stop swill feeding

Field investigation:

Swill feeding OR = 7.653 (95% CI: 2.24, 26.14)

30 Aug. 2018 – Stop swill feeding in provinces
having outbreaks and their neighboring provinces
18 Oct. 2018 – Ban swill feeding at national wide



50%



40%



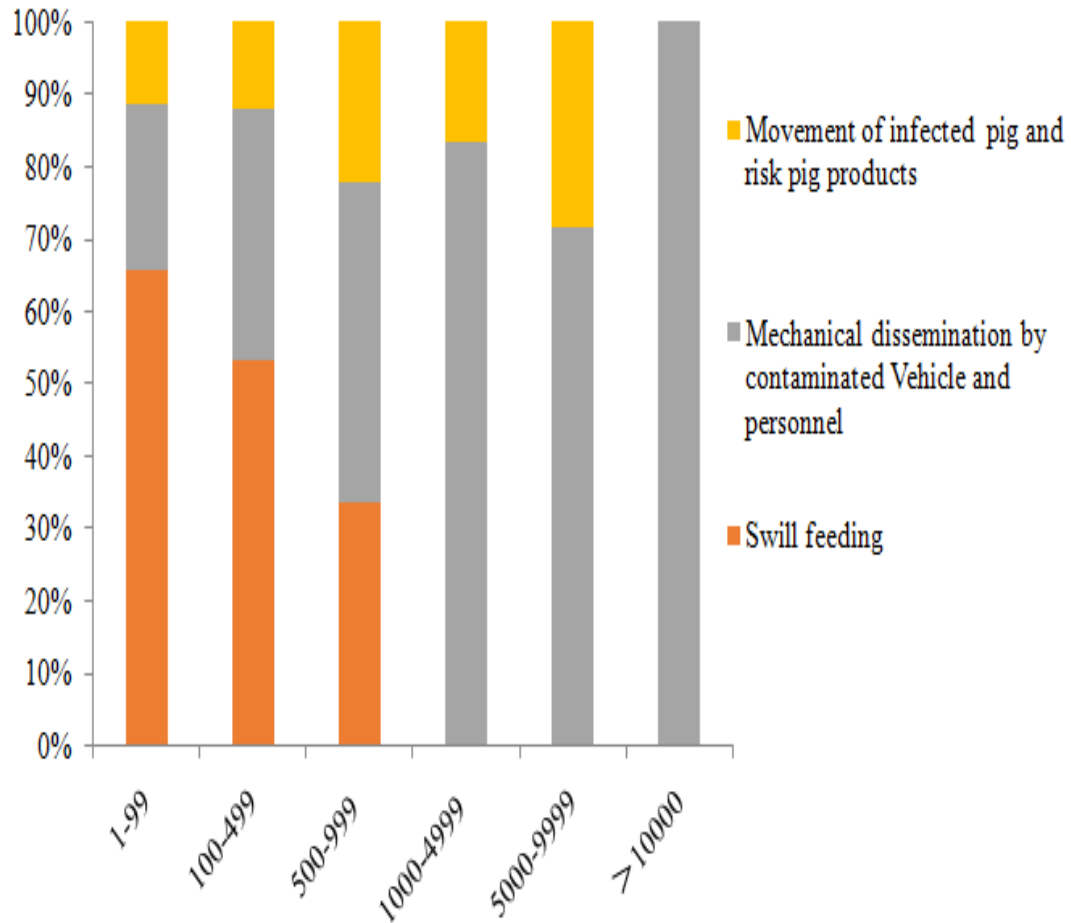
Protecting susceptible animals

② Improving biosecurity management

Biosecurity
loopholes in large
intensive farms

Scale	Output of each scale	Proportion of farms in each scales	Outbreak proportion of each scale	Outbreak risk
1-99	37.0%	97.3113%	30.1%	0.81
100-499	18.1%	1.6865%	40.7%	24.1
500-999	12.3%	0.3925%	8%	20.4
1000-4999	16.8%	0.1824%	10.6%	58.1
5000-9999	5.1%	0.0166%	6.2%	373.5
≥10000	10.7%	0.0107%	4.4%	411.2

Similar transmission process for all outbreaks in large intensive farms



- No construction or operation of exit channel for culling sows is the cause
- Lack of strict cleansing and disinfection system for vehicles
- Culling pigs
- Confusion of diseases with similar symptoms.
- Internal transfer vehicles
- Growers and veterinarians

ASF Introduction

Took 2-3 months to identify ASF

Spread within farm

Stricter the management and the better facilities, the slower spread

Protecting susceptible animals

② Improving biosecurity management

MARA notification (22 Oct. 2018)

Improving biosecurity management in breeding farms and large intensive farms

➤ Personnel : Truck drivers, Insurance agents, Para Vet

➤ Transportation: Loading area in farm, vehicles

➤ Flies/ Mouse:



Part III

Collaboration



Promoting Multi-sector collaboration & Public awareness

Interest-based stakeholders coordination mechanism

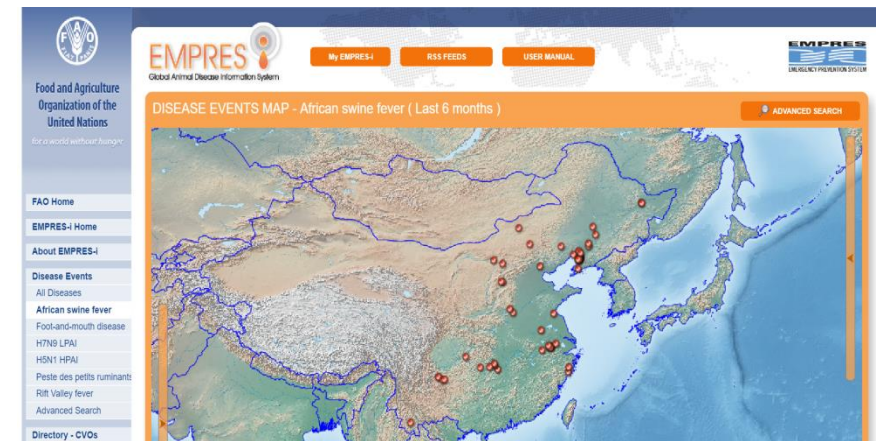
- Strengthen multi-sector collaboration
- Unify same objectives among stakeholders
- Minimize obstacles

Public awareness:

- Raise the awareness of pig growers and other stakeholders
- Mobilize the support from the public

Enhancing international collaboration

- With FAO, OIE and other countries
 - Sharing experience in ASF prevention and control
 - Providing technical assistance for neighboring countries
- Collaboration on ASF research



THANK YOU

