Why African swine fever is a global challenge and global response is needed?

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Content

1. Global status of ASF and lessons learnt from ASF genotype II control

2. Why Global Strategy for ASF control
As of April 2019
Asia: 4 countries: China, Mongolia, Viet Nam and Cambodia
Europe: 11 countries Belgium, Bulgaria, Estonia, Hungary, Latvia, Lithuania, Poland, Ukraine, Romania, Moldova, the Russian Federation.
Czech Republic has eradicated ASF in wild boars.
Africa: Sub-Saharan Africa is endemic but underreporting
Lessons learnt from ASF genotype II

**Transmission**
- Direct transmission from pig to pig, wild pigs to wild pigs, wild boar to pig:
- Indirect transmission: fomites-to-pig transmission
- Feed-to-pig transmission: **swill feed**

**Key features**
- Human driven disease, long-distance disease transmission
- High incidence in pig farms with low biosecurity farms
- Swill feeding is important factor
- Slow transmission within affected farms
- Stamping out works only when fair and timely compensation is provided
- Establishment in wild pigs population and environmental contamination
- Seasonal peaks for domestic pigs June-August and for wild boars June-July and November-December
Why global strategy for African swine fever control

The pig sector became globalized with large number of value chain stakeholders

The wild pigs increased densities and expanded geographical distributional range.

Climate change and extensive cereals production benefit both local wild pigs local densities and expanded geographical distribution

The drivers and consequences for development of the global strategy

- Economy
- Sustainable production
- Disease epidemiology
- Conservation
- International Cooperation and Transparency


Source: [https://resourcetrade.earth/data?year=2017&category=80&units=value](https://resourcetrade.earth/data?year=2017&category=80&units=value)
**Economic drivers and consequences**

- Important sector with global sale of pork **USD 39.4 bn in 2017**
- The share of pork of global meat trade is 32%. Growing demand for pork
- **Cost of ASF prevention and control**
- **Trade restrictions and related economic losses**
- Feed industry (soya, corn, additives, high risk feed -spray-dried plasma, etc) and pig technology **suppliers**
- **Increased demand and prices for pork - increase risks via smuggling** and even via **official trade** of pork – re-export hubs like China Hong Kong

Source: [https://resourcetrade.earth/data?year=2017&category=80&units=value](https://resourcetrade.earth/data?year=2017&category=80&units=value)
Sustained pig production including social aspects

Global threat to the livestock sector impacting the livelihoods of farmers and food security

43% of all pigs produced worldwide can be considered as backyards farms, mostly located in low-medium income countries with low biosecurity practices including traditional scavenging systems

Backyard pig keeping is widely practiced by women, pensioners, unemployed youth and other vulnerable sectors of society
1. Sylvatic cycle: the common warthogs; bushpigs and soft ticks.
2. Tick-pig cycle: soft ticks; domestic pigs.
3. Domestic cycle: domestic pigs and pig products.
4. Wild boar-habitat cycle: wild boar; pig- and wild boar products and carcasses; the habitat

Other cycles might be more efficient and be emerged and established in tropical areas!
It is likely to get worse further west...

ASF in wild boar

Credit: Sergei Khomenko, FAO HQs
ASF panzootic potential …

+ Competent vectors
+ Mechanical vectors
+ in tropics?

Credit: Sergei Khomenko, FAO HQs
Experience with genotype II and genotype I 1960-1995 and still in Sardinia, Italy but what do we really know about the rest ASFV 22 genotypes?
Conservation

ASF endemic and its persistence together with the increased hunting effort resulted in decreased wild boar biomass available for predator and scavenger sympatric species.

The wild boar abundance could abruptly shift hunting toward alternative game species making their exploitation unsustainable or legally allowing the restocking with alien species.

ASF could also affect the populations of endangered Asiatic Suidae especially if the virus will show the same epidemiological patterns observed in wild boar.

The risk that some wild pig species (genus Babirussa and Sus) will behave similarly to warthog and hence playing the role of persistent reservoir of the virus.

Credit: V. Guberti and S. Khomenko
International Cooperation and Transparency

• Effective, transparent Veterinary Services, meeting the OIE’s quality standards

• Notification to OIE, FAO, regional economic organization and neighbouring countries

• GF-TADs as facilitating mechanism to empower regional alliances in the fight against ASF and to provide for capacity building and to assist in establishing programmes for the control of the disease
The Global Strategy is expected to achieve **four outputs**:

- Importance of ASF and its impact is **recognized globally**
- ASF is **controlled** in most of countries and **eradicated** in some of countries not free today, while **protecting free status** of other continents/countries
- Prevention and control of **other major diseases of swine** are improved as a result of the ASF control strategy
- Established **sustainable private-public partnership** on disease prevention and control

The impact sustained development of the global pig sector contributing Sustainable Development Goals

The outcome global pig sector and associated value chains resilient to high impact diseases
The purpose of global strategy is to make transparent and available scientific knowledge for member countries to develop national and regional strategy and action plans.
Conclusion and follow up

- ASF is an infectious disease whose control and prevention should be recognized as being a global public good
- Global risk and none is protected from emergence and spread
- Eradication of ASF is not feasible in short term perspective
- Efforts should be made to prevent further spread to free countries and ensure sustained pig production in endemic countries
- Countries should be prepared in advance to ensure sustained pig production and trade at high risk/ endemic situation – regionalization, zoning, compartmentalization
Conclusion and follow up

• Global Strategy is to make transparent and available scientific knowledge for member countries to develop national and regional strategy and action plans to address ASF risks

• Gaps in ASF epidemiology and need to continue research, including development of potent and safe vaccine

• Maintain awareness of producers, consumers, game keepers and foresters

• Foster international transparency and cooperation

• Share and disseminate best practices e.g. GF-TADs Europe Standing Group of Experts on ASF

• Public-Private Partnership is vital for success of ASF prevention and control

• Socio-economic studies to advocate more investment in ASF prevention and control
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- EFSA 2015. Scientific opinion on African swine fever
THANK YOU
FOR YOUR ATTENTION