World Organisation for Animal Health

Australian Government
Department of Agriculture, Fisheries and Forestry

Identification of direct investments, indirect costs and benefits - A private sector perspective

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Presentation covers

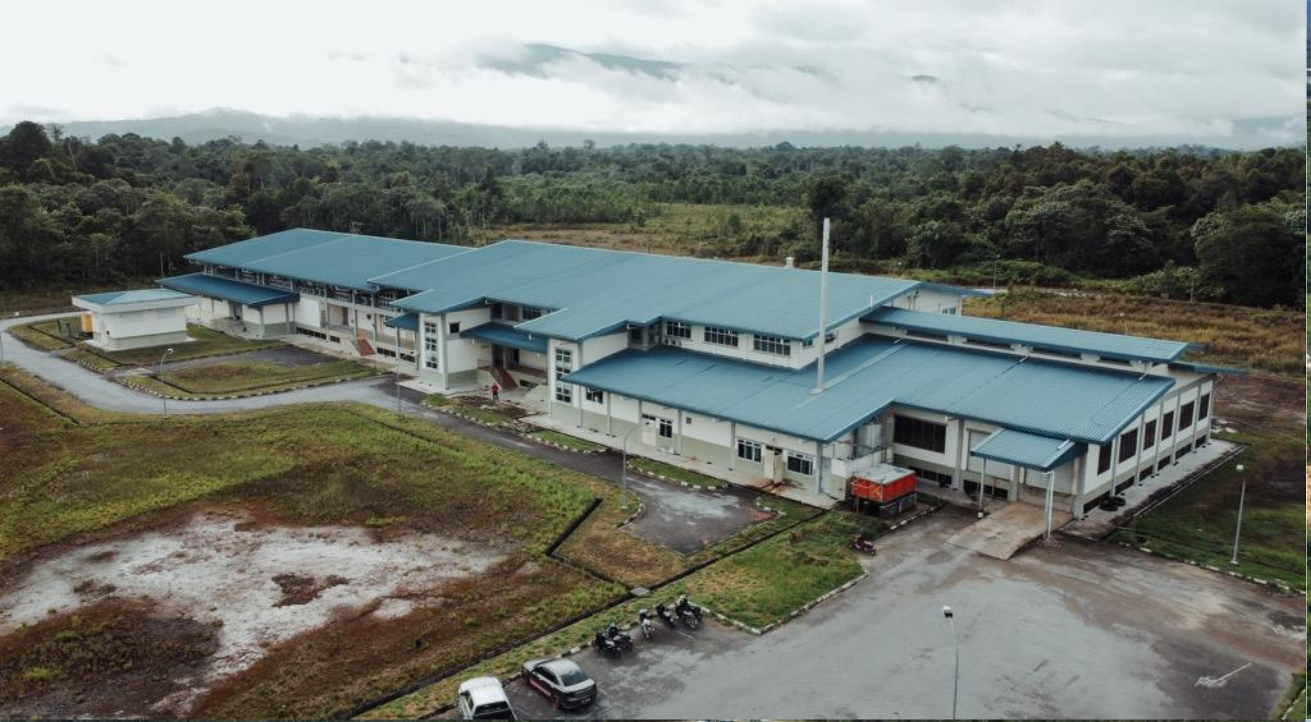
- *Background, context, rationale covering ASF impact on industry, role of compartments in continuity of trade, cost benefit considerations, economics to enter into the business etc.*
- *How and what has been done to support the decision making on investment for setting up and sustainable management of the compartment, investment breakdown in broad categories*
- *Type of direct (infrastructure,equipments, production design and system, management, veterinary services –surveillance, testing, biosecurity, animal health and welfare of pigs in line with national and International standards) and indirect costs (time between production cycles, human resources, training, price fluctuations, supply chain adjustments etc)*
- *Auditing, Certification , compliance and continuous monitoring costs and its benefits (trade partner trust, transparency, confidence etc.)*
- *Role of stakeholders including public authorities, traders, other actors in the Pig value chain*
- *Importance and benefit of identification of direct or indirect costs setting up, managing operations and use of compartment.*
- *What risks identified and how risks managed to ensure return of investment, business continuity, any other challenges.*
- *Summary*

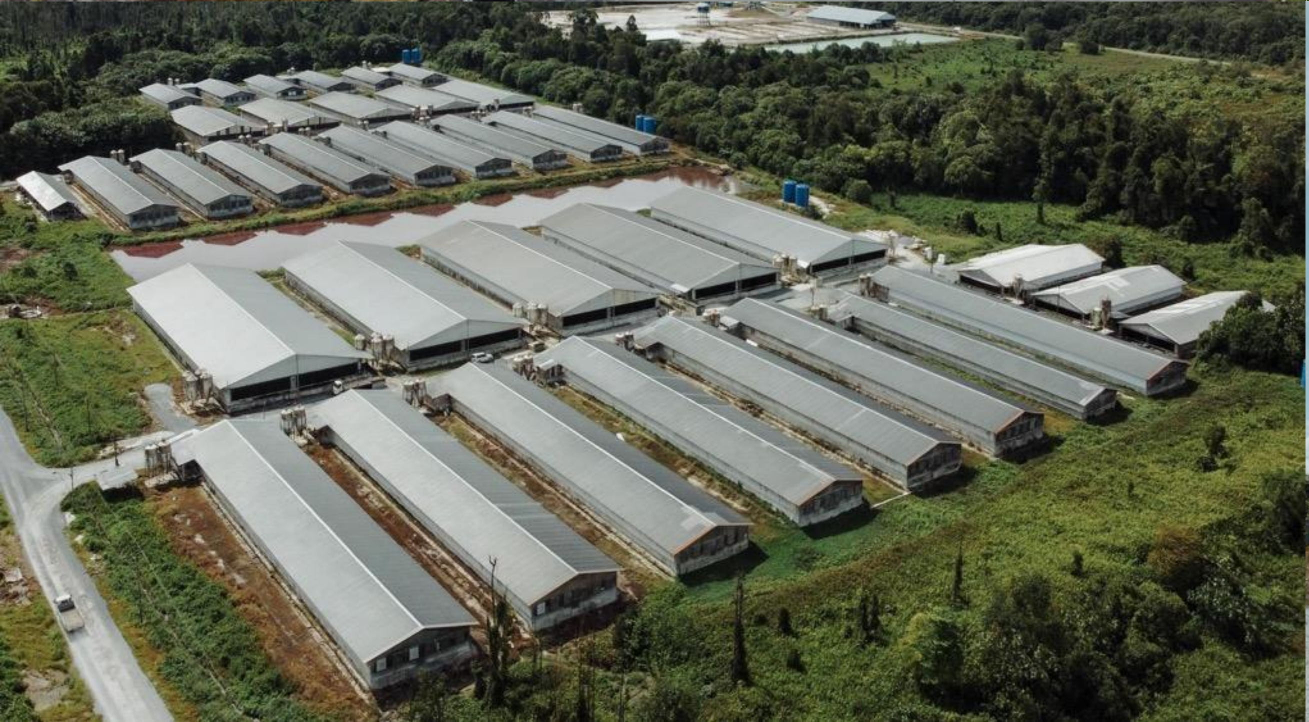
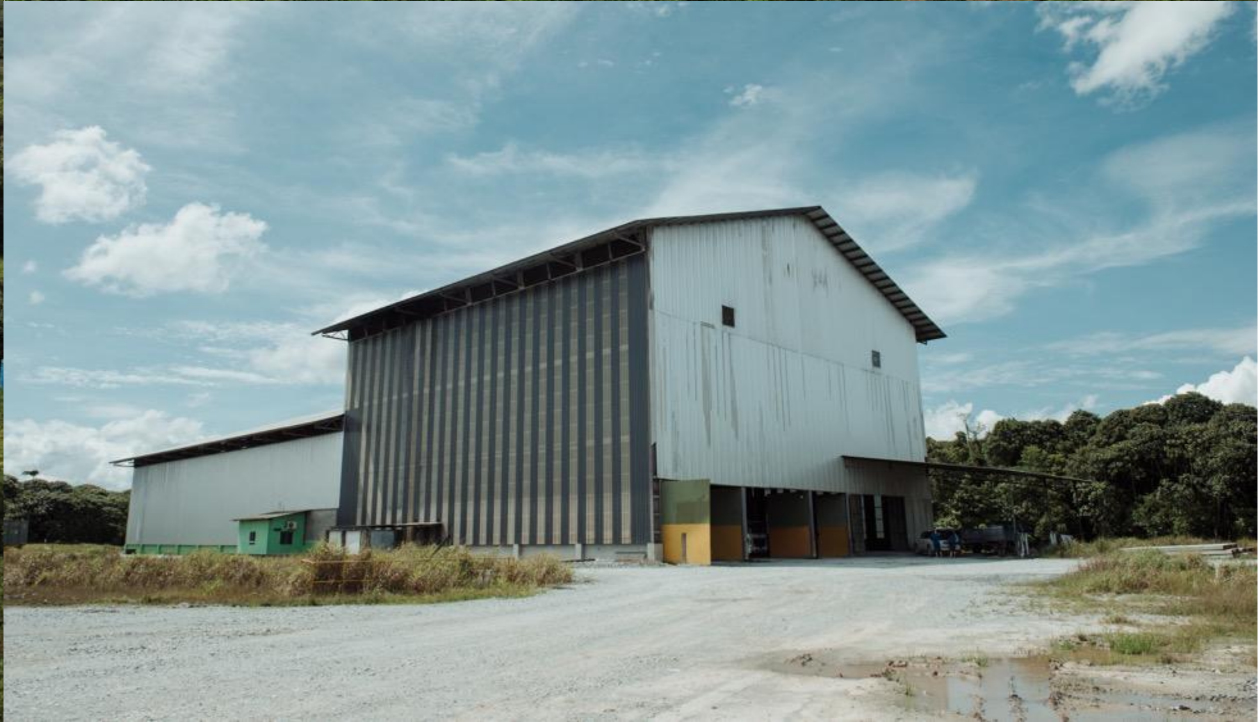
ABOUT THE PIG FARMING AREA

- Project led by DVS Sarawak and the late Dr Ng Siew Thiam
- ~800 hectares
- Concept: to relocate all farmers in southern region into one site with integrated biosecurity, feed mill, abattoir and waste management
- Established ~2005 with goal of exporting in mind
- First shipment of live pigs to Singapore in 2017

ABOUT US

- Anchor farmer at PFA
- Breeder to finisher system
- Vertically integrated with feed mill and downstream slaughtering, retailing and processing
- Produce finisher pigs for local and export market (Singapore, Selangor)
- Obtained ASF Free compartment status in 2023, granted by DVS Putrajaya, accepted by Singapore Food Agency



WHAT HAPPENS WHEN ASF HITS – a business perspective

- Total herd loss: from mortality and stamping out policy
- Premises not operating– fixed costs continue even with no production
- Decontamination – very long time required, not guaranteed to eliminate ASFv
- Recovery – at least 12 months before operations can resume
- Lost of market access: customers would have found alternatives

WHY DID WE COMPARTMENTALISE

- Protect trade with Singapore
- Build a robust biosecurity system
- Safeguard the business and livelihoods of people and families
- No other alternatives

OUR COMPARTMENTALISATION JOURNEY

2020:
- ASF devastating pig farms in the region

2021:
- ASF confirmed in Sarawak
- Emergency biosecurity measures implemented

2022:
- ASF spreads across Sarawak
- Requested by SFA to formalize disease free status
- Decision to pursue compartmentalisation
- Systematic biosecurity overhaul
- DVS Sarawak engaged

2023:
- ASF free compartment manual submitted
- Audited by DVS Putrajaya
- ASF Free status granted
- Status accepted by SFA

2023 - present
- Yearly audit by SFA
- Biennial audit by DVS Putrajaya
- Continual improvement and surveillance

INVESTMENT BREAKDOWN

DIRECT COST:

- Infrastructure
- Equipment
- Surveillance

INDIRECT COST:

- Operational inefficiencies
- HR and Management burden
- Supply chain & external constraints

INFRASTUCTURE AND EQUIPMENT

PFA

PRODUCTION AREA

BIOSECURITY CONTROL AREA

“OUTSIDE” AREA

LOADING HOUSE (pigs)

CHANGING ROOM (HUMANS)

ABATTOIR

FINISHING UNIT

BREEDING UNIT

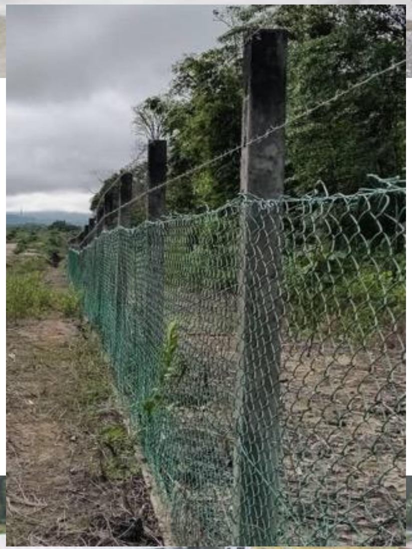
FEEDMILL

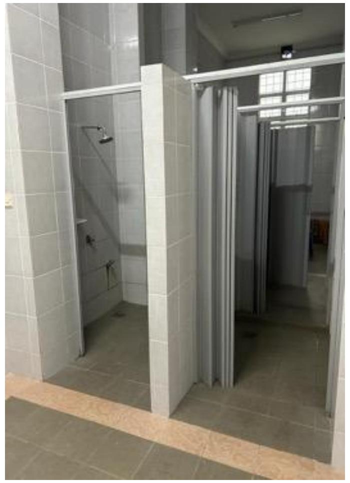
NO VEHICLE FLOW

NO HUMAN FLOW

NO HUMAN FLOW

NO VEHICLE FLOW

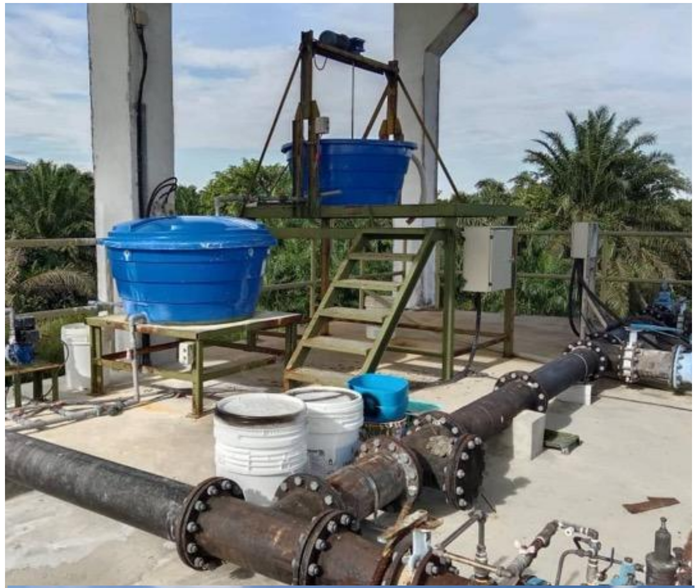


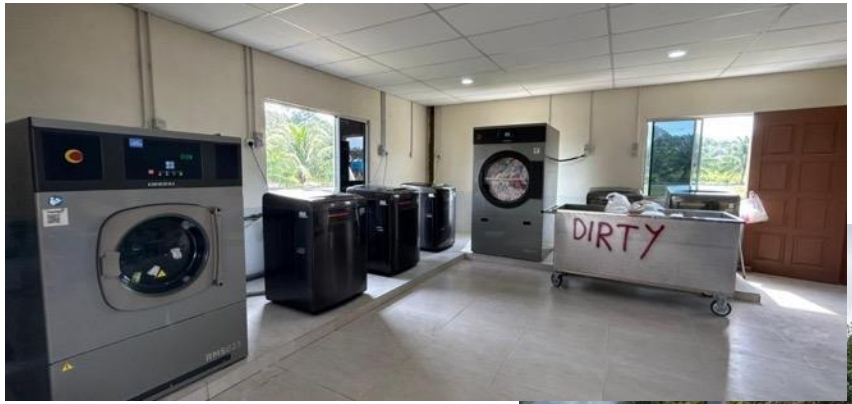


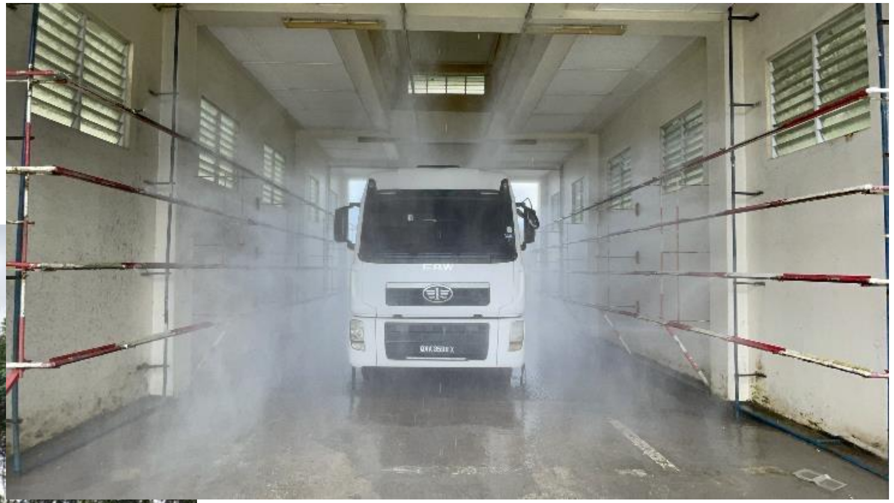
INFRASTUCTURE AND EQUIPMENT

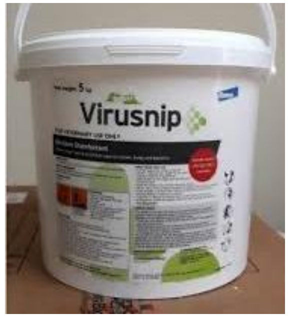
- Disinfection station – vehicle wash stations, wheel dips etc
- Disinfectants
- Incinerators
- Perimeter Fencing
- Additional Water Treatment

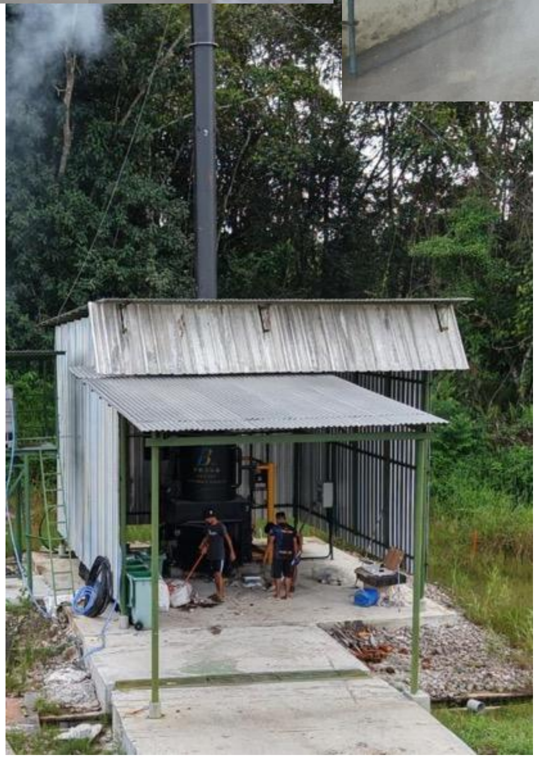
INFRASTRUCTURE / EQUIPMENT

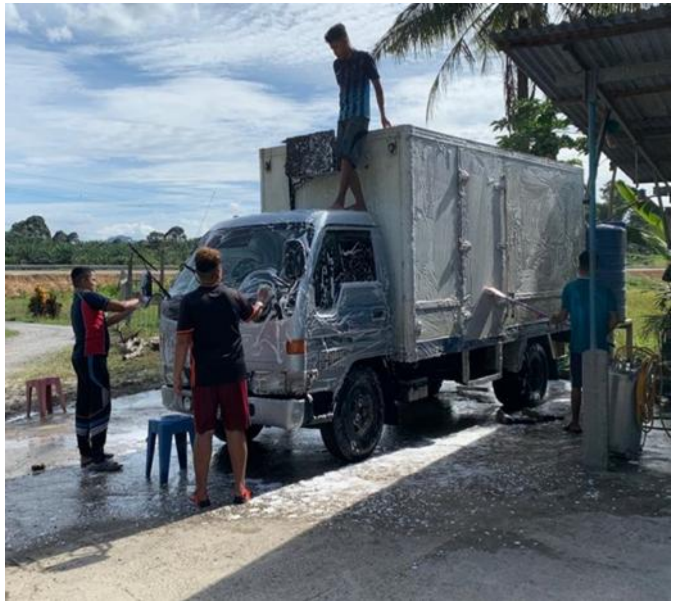


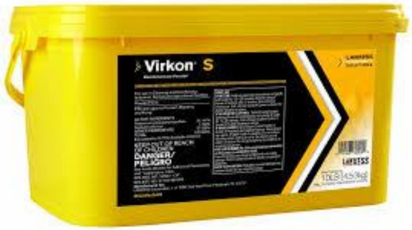






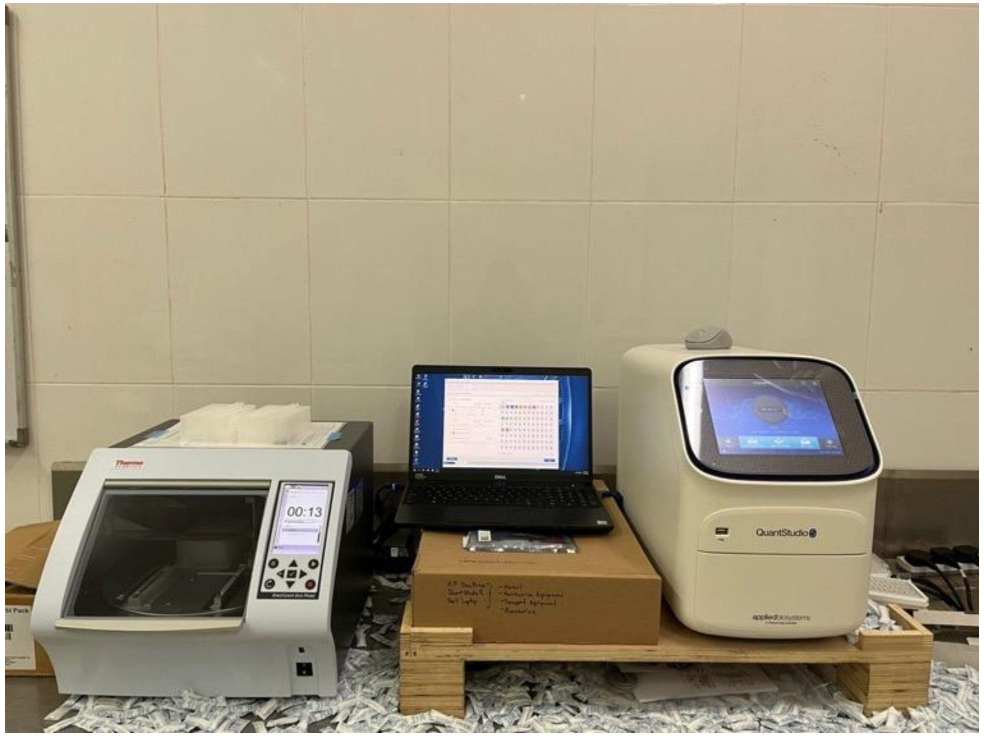






DIRECT INVESTMENT - SURVEILLANCE

- Set up in house PCR testing for ASFv
- Animal samples: 1% of live pigs export
- Environmental samples: water, feed, environmental swabs



INDIRECT COSTS

- Production and operational inefficiencies: every protocol adds time, rigidity and costs to daily farm operations
- Human Resource and management constraints: People, training, documentation and oversight that never stops
- Supply Chain & Logistics Constraints: fewer suppliers, higher logistics requirements, reduced commercial flexibility

OPERATIONAL INEFFICIENCIES

- Slower, more bloated daily workflow – more procedures to comply to
- Rigid production cycles – all in/all out system
- Higher cost of production – disinfection, consumables, procedures
- Capital tied up in biosecurity – opportunity costs of funds not used elsewhere

HR and Management

- Dedicated biosecurity team – additional staff that does not contribute to production
- Ongoing training – to educate about ”the big picture” behind biosecurity
- Documentation load – extra time and effort needed to keep documents, records up to date.

SUPPLY CHAIN & EXTERNAL CONSTRAINTS

- Supplier qualification required – auditing and approving input sources
- Reduced supplier options – stringent requirements shrink approved list
- Logitics protocol – dedicated vehicles, disinfection, driver compliance

CHALLENGES IN MAINTAINING THE COMPARTMENT

- Staff compliance and discipline: enforcing zero tolerance consistently is very challenging
- Sustaining biosecurity culture: getting staff to understand the why being every protocol
- Documentation discipline: keeping records accurate, complete and audit ready everyday
- Cost pressure during lean periods: compliance costs maintains the same even during low seasons or during market glut

WHAT WE WOULD DO DIFFERENTLY

- We implemented on a contingency basis: when ASF was at the door, maximising biosecurity took priority over cost efficiency.
- No time for risk assessment: implement first, evaluate later
- Systematic review required to optimize cost
- A risk based approach from the start would have reduced costs and allow for better resource allocation
- If you have time – use it to do risk assessment before implementing anything

WEIGHING IN THE COSTS

- Compartmentalisation is not a one time capital investment – it is an ongoing long term investment.
- Traditional ROI measures does not work, ROI for compartmentalization is primarily through surviving the outbreak
- Price to pay for business continuity when other farms are shut down and unable to recover

BENEFITS OF COMPARTMENTALISATION

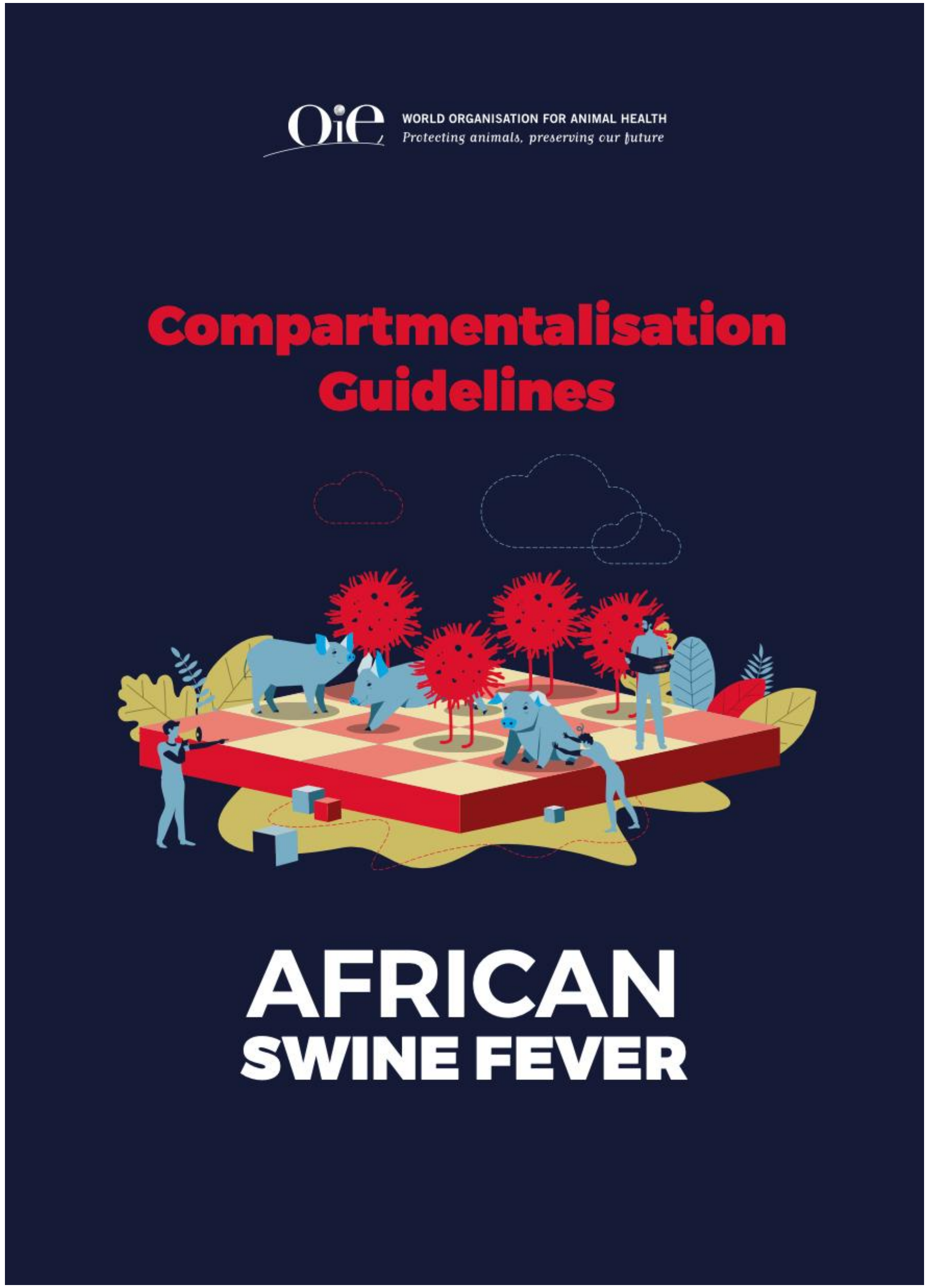
- Maintained ASF free status through active regional outbreaks
- Continued export despite outbreak in region
- External audit cycle drives continuous improvement and accountability
- Instills confidence and builds credibility with consumers, authorities (SFA, DVS) and trading partners.

SUMMARY

- **ASF IS NOT A DISEASE YOU MANAGE, IT IS A DISEASE YOU SURVIVE OR DON'T.**
- Compartmentalization is effective in reducing risk, ensuring business continuity
- Risk based compartmentalization can help to manage costs

USEFUL RESOURCES

- WOAH terrestrial animal health code
- WOAH compartmentalization guidelines for ASF



Thank you