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# African swine fever (ASF)

- Asia and the Pacific, regional situation and efforts to control ASF

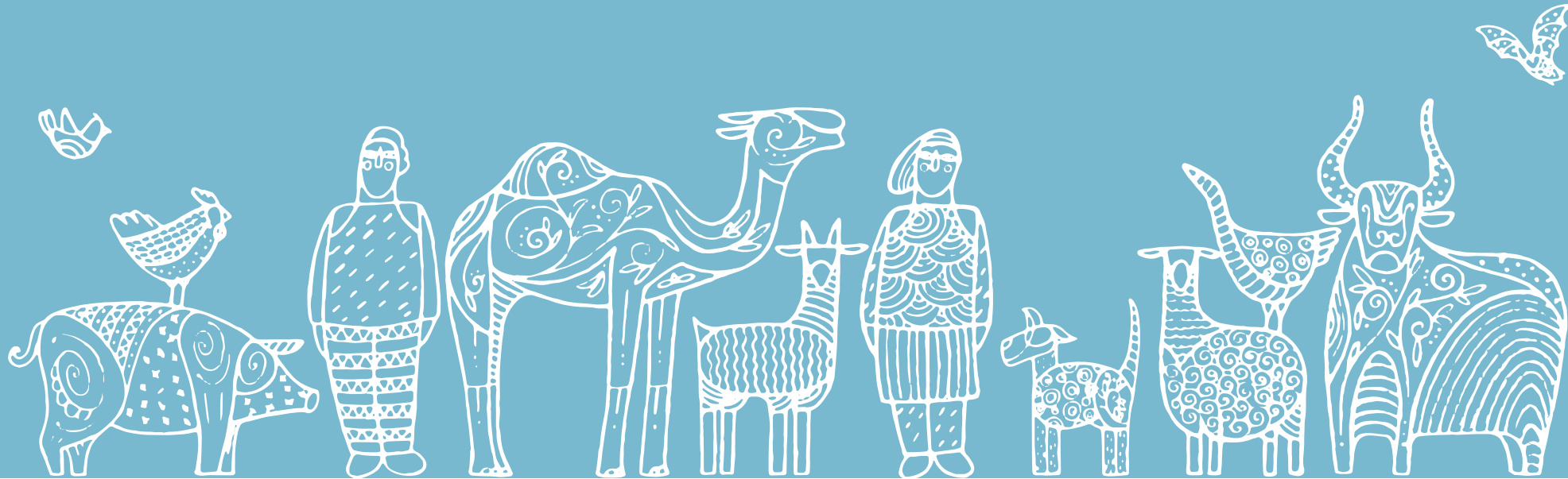


**Yooni Oh, DVM, MVPH, PhD**

*Animal Production and Health Officer (ASF regional Project Coordinator), FAO RAP*



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# Regional efforts to fight ASF – Asia and the Pacific

## Current ASF situation in Asia-Pacific

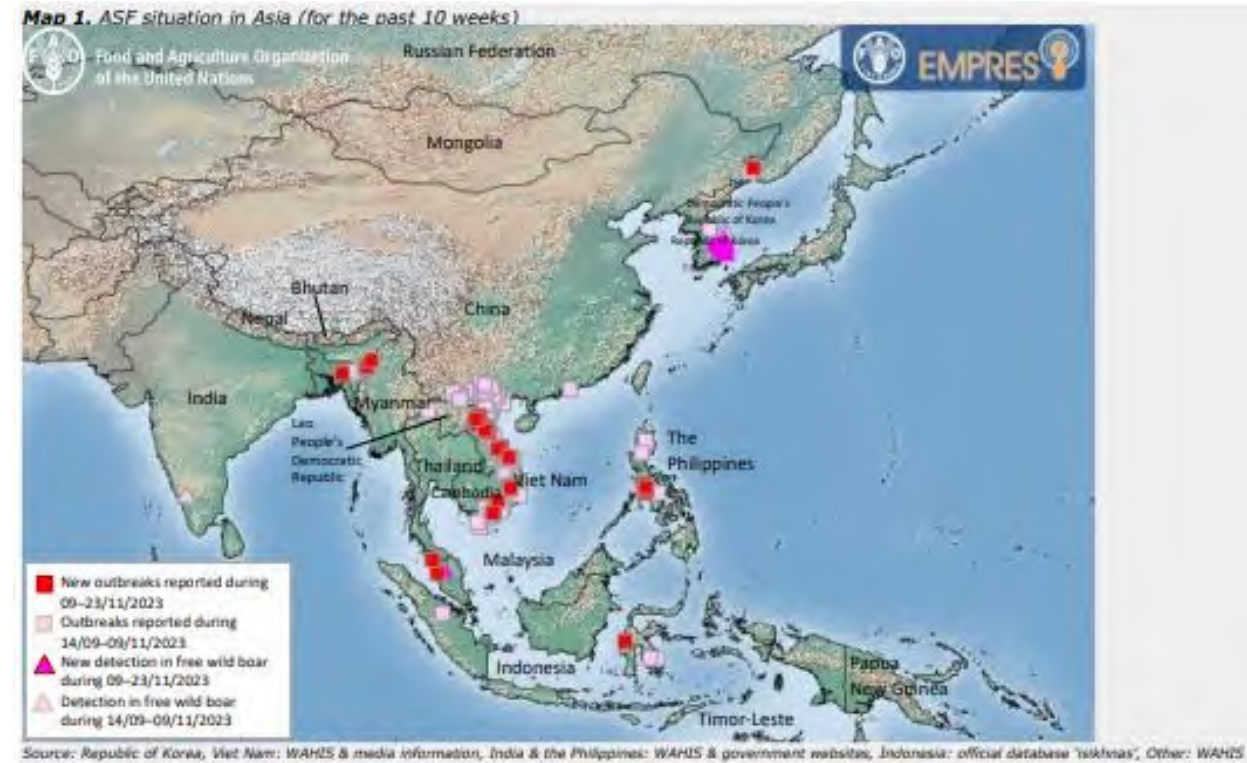
- As of Nov 2023, a total of **18** countries in Asia-Pacific officially reported ASF:
  - China (Aug 2018)
  - Mongolia (Jan 2019)
  - Vietnam (Feb 2019)
  - Cambodia (Apr 2019)
  - DPRK (May 2019)
  - Lao PDR (Jun 2019)
  - Myanmar (Aug 2019)
  - Philippines (Sep 2019)
  - ROK (Sep 2019)
  - Timor-Leste (Sep 2019)
  - Indonesia (Dec 2019)
  - Papua New Guinea (Mar 2020)
  - India (May 2020)
  - Malaysia (Feb 2021)
  - Bhutan (May 2021)
  - Thailand (Jan 2022)
  - Nepal (Mar 2022)
  - Singapore (Feb 2023)



<https://www.fao.org/animal-health/situation-updates/asf-in-asia-pacific/en>

## Current Situation in Asia-Pacific

- In India, Tripura State confirmed ASF in Khowai District.
- The Deputy Prime Minister, Viet Nam called for measures to prevent and control ASF.
- Romblon Province, the Philippines, declared a state of calamity in five towns.
- According to media quoting the Rangamati District Livestock Officer, pigs started dying on 13 November in Rangamati District, Chittagong Division on the only official pig farm in Bangladesh keeping 13 pig breeds, around 100 pigs have died by 22 November. Samples sent to the Central Disease Investigation Laboratory (CDIL) tested positive for ASF by PCR.



# ASF Regional Collaborative Framework for Asia and the Pacific

Objective: To prevent the spread and mitigate the impacts of ASF in Asia and the Pacific

## Better understanding of ASF and swine sector

- Research gaps and priorities
- Operational research such as value chain mapping, ecological studies

## Enhanced effective approach for ASF prevention and control

- Risk assessment
- Surveillance
- Risk mitigations in immediate, medium and longer terms, including endemic situation

## Business continuity and recovery

- Compartmentalisation
- Recovery options
- Business transition
- Vaccine development

## Strengthened policy and enabling environment

- Human and financial resources to respond to ASF
- Legislations and regulatory frameworks
- Disease reporting

## Enhanced communication and policy advocacy

- Communication and advocacy strategies for specific stakeholders
- Enhanced veterinary services' communication
- Policy advocacy

## Developed required capacity

- Technical capacity: Laboratory, field investigation and response
- Operational capacity: Emergency system preparedness and response

## Enhanced collaboration and coordination

- Multi-sectoral: Public-private partnerships, inter-ministries, academia,
- Multi-lateral: Sub-regional, regional, interregional and global
- Multi-disciplinary: Research networks



## Regional coordination (under the regional GF-TADs)

**18 Aug 2018:  
Outbreak  
reported in  
China**

**5-7 Sep 2018:  
Regional  
emergency  
consultation**  
Information and  
knowledge sharing  
Rapid risk  
assessment  
Needs and gaps  
assessment

**Apr 2019: ASF  
SGE established**

- TOR discussed
- Priority areas developed
- (There have been at least 8 SGE meetings organized until Jul 2023)

Next SGE is planned in  
Jun 2024

**Aug 2019:  
Regional  
consultation**

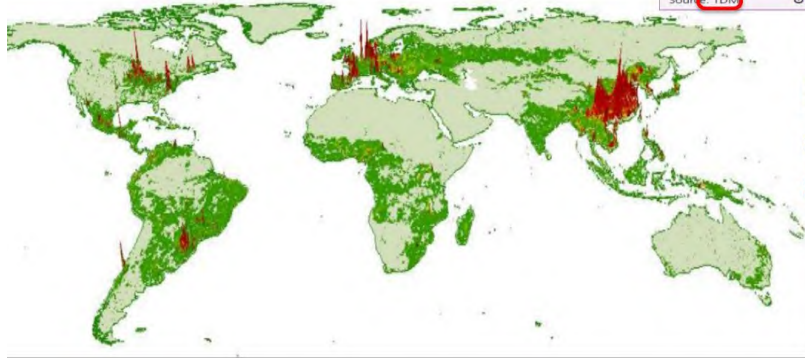
- Collaborative framework agreed
- Inventory of emergency supplies for ASF initiated

**Mar 2021:  
Regional  
consultation**

- Framework revised
- Needs and gaps reviewed

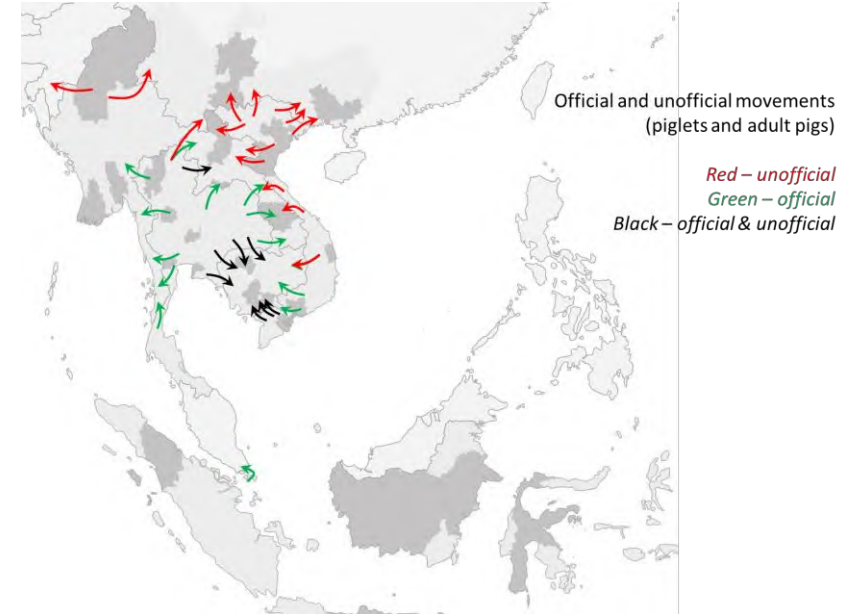
Next reg consultation  
is planned in Apr 2024

At least 60% of the world's domestic pig population is concentrated in east and southeast Asia.  
40% in low biosecurity system (by population)



High impacts on economic losses and food security

## Pig movement in GMS (value-chain study)



	pig production system			
	smallholder		semi-commercial	commercial
KH	90% (upto 50)		9% (50-200)	1% (>200)
LA	70% (<20)		18% (>20 or 10-15 sows)	12% (>15 sows)
MM	80%		20%	
PH	71%		29%	
TH	92%		8%	
VN	70% (<20, 1-2 sows)	15% (<100, 20-50 sows)	2% (100-200, 20-50 sows)	13% (>1,000, 600-1,200 sows)

• Source: Swine industry profile of selected South East Asian countries - KH, LA, MM, PH, TH, VN published by FAO-RAP, Oct 2011

## Swill feeding is very common, but pose risks!





## Multidimensional approach to combat ASF





# [PREPAREDNESS] Coordination efforts under GF-TADs umbrella (through SGE)

**2018.9.5-7** Bangkok, TH  
The Emergency Regional Consultation on ASF risk reduction and preparedness

**2018.11.12-16** Chiang Mai, TH  
The 15<sup>th</sup> International Symposium of Veterinary Epidemiology and Economics (ISVEE15)

**2019.4.9** Beijing, CN  
International Symposium on the Prevention and Control of African Swine Fever (ASF)

**2019.4.23-25** Vientiane, LA  
ASF Planning and Preparedness workshop

**2018.10.10-11** Beijing, CN  
The Technical Consultation Meeting on Application of Technology to Strengthen ASF Control through Rapid Detection and Response

**2019.4.8-11** Phnom Penh, KH  
Technical support to the 1<sup>st</sup> National Consultative Workshop on the Development of ASF Preparedness and Response Plan and the training workshop on Operationalizing the ASF preparedness and response plan for Cambodia

**2019.4.10** Beijing, CN  
The 1<sup>st</sup> Meeting of the Standing Group of Experts (SGE) on ASF for Asia

**2019.7.30-31** Tokyo, JP  
The 2<sup>nd</sup> SGE-ASF for Asia  
**2019.11.26-28** HCMC, VN  
The 3<sup>rd</sup> SGE-ASF for Asia

**2020.4.21** Online  
The 4<sup>th</sup> SGE-ASF for Asia  
**2021.2.5** Online  
The 5<sup>th</sup> SGE-ASF for Asia

**2021.9.27** Online  
The 6<sup>th</sup> SGE-ASF for Asia  
**2021.12.15** Online  
The 7<sup>th</sup> SGE-ASF for Asia

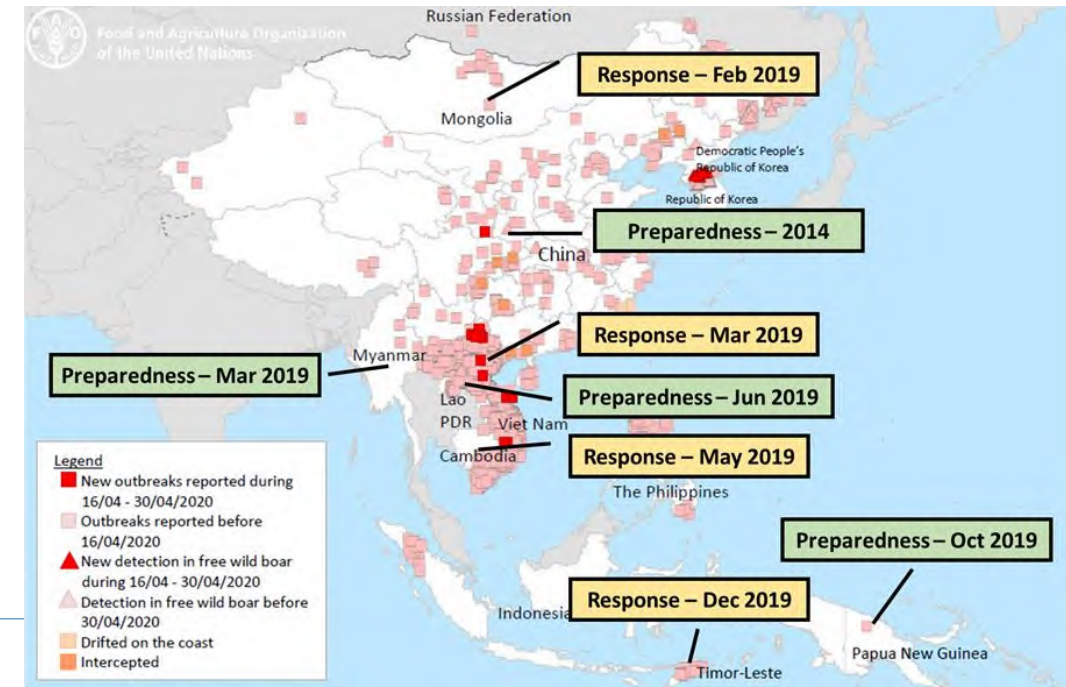
**2022.11.2** Geelong, AU  
Side session SGE-ASF for Asia

## • Risk profiling (self-assessment questionnaire)

	Live pigs (Off.)	Live pigs (Unoff.)	Pork/pig products (Off.)	Pork/pig products (Unoff.)	Contaminated fomites	Wild boars	Ticks ( <i>Ornithodoros</i> spp.)
China	Yellow	Yellow	Yellow	Red	Yellow	Red	Yellow
Mongolia	Yellow	Green	Red	Red	Yellow	Red	Yellow
Lao PDR	Red	Red	Red	Red	Yellow	Red	Red
Myanmar	Yellow	Green	Red	Red	Yellow	Red	Yellow
Viet Nam	Yellow	Red	Red	Yellow	Green	Red	Yellow
Cambodia	Red	Red	Red	Red	Yellow	Red	Red
Thailand	Green	Yellow	Red	Red	Yellow	Red	Yellow
Philippines	Green	Green	Yellow	Red	Yellow	Yellow	Green
ROK	Green	Green	Green	Green	Green	Green	Green
Japan	Green	Green	Green	Green	Yellow	Red	Red

Red = High    Yellow = Moderate    Green = Low

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## General Control measures implemented by the countries

- Biosecurity
- Cleaning and disinfection
- Movement control
- Zoning
- Border control
- Surveillance
- Wild boar surveillance
- Culling and disposal
- Advocacy
- Awareness
- Ban swill feeding
- Private-public partnership
- Early detection, culling, disposal and compensation
- Contingency plan implementation



## Lessons Learned by countries (what worked and needs improvement)

- **Biosecurity as key to control**
- Awareness of all stakeholders
- Stakeholder engagements
- Coordinated approach at different levels of government
- Transfer of knowledge to field people
- Sustained surveillance approaches
- Laboratory capacities
- Budget preparation to include emergency fund
- Wild boar ecology and surveillance
- Pig population census
- GAHP accreditation
- ASF free farm certification
- Animal products control to prevent spread
- ASF National Network within the country
- Clear Policies on disease control: compensation, re-stocking
- Show leadership from central to local level
- International cooperation



## Main Gaps cited by countries

- **Biosecurity** in smallholder farms
  - Need for proper cleaning and disinfection
  - Risk of home slaughter
  - Pig movement control
  - Selling of infected hogs
- **Surveillance**
  - Diagnostic facilities
  - Wild boar mortality
  - Culling of wild boar
  - Coordination with other ministries (boar surveillance falls under different ministry)
- **Culling with no compensation**
  - Compensation schemes
- **Stakeholder Engagement**
  - Restructuring/structure of veterinary services (hinders implementation of control measures)
  - Private sector involvement
  - Low Awareness
- **Economic impact**
  - Pig stocks in low supply
  - Price increase



## Key actions for ASF preparedness, response and recovery

### Policy supports (FAO/WOAH)

#### *Finalised*

- Practical guidelines for smallholders
- Lab protocol and algorithm
- ASF in wild pigs
- ASF diagnostic tests for field application
- ASF outbreak investigation SOP
- ASF Contingency plan for KH
- National AP for VN
- Global control of ASF: GFTADs initiative
- Compartmentalisation guidelines: ASF
- ASF Cross-border risk assessment manual
- ASEAN ASF Prevention and Control strategy

#### *Pipeline*

- Monitoring and surveillance – 2<sup>nd</sup> ed.
- Lab protocol & algorithm – revision
- Support to development of Risk-based ASF Control Strategy in some countries



## Key actions for ASF preparedness, response and recovery

### Technical supports

#### Laboratory

- Regional PT
- Dx reagents
- Dx trainings: lab and on-site

#### Epidemiology

- Training: FETPV
- Outbreak Investigation SOP/training/op cost

#### Emergency response

- EMC missions
- PPE/procurement
- Coordination call

#### Recovery

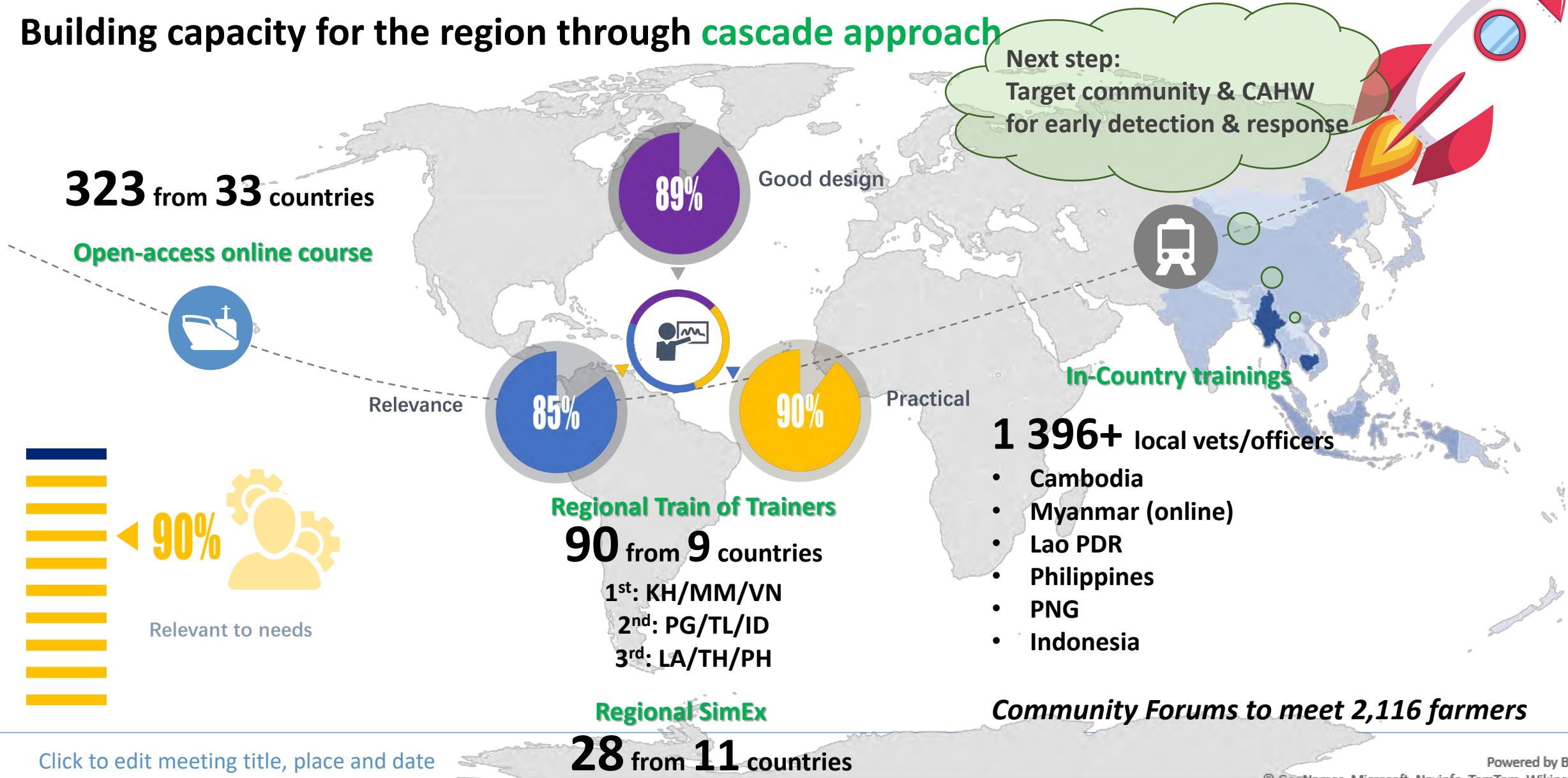
- Community engagement
- Awareness
- Education
- Strengthen biosecurity

#### Capacity building

- At all levels: regional, national, subnational, field

#### Develop and disseminate IEC materials

## Building capacity for the region through **cascade approach**



# Key actions for ASF preparedness, response and recovery

## Better understanding of ASF drivers via value chain analysis

- 2 regional study on value chain along with wild boar
- 2 value chain analysis
- 1 piloting cost assessment tool
- 1 Value chain analysis using sociological approach focused on ASF (Philippines)
- 1 regional online course on Value Chain Analysis for Animal Disease Risk Management

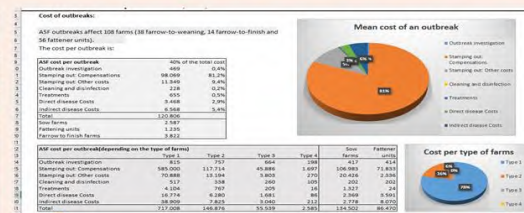
**Nov 2018**

Identify research priorities and synergies @ ISVEE; session with OIE



**Nov 2020**

Value Chain analysis WS to support ASF control & prevention in TH



**Apr-Dec 2019**

Value Chain Study (TH, CN, KH, VN)  
Captive wild boar  
Swill feeding  
Small scale holder

**Jan-Feb 2021**

Piloting of the cost assessment tool (developed by European colleagues) in the PH



**Aug 2021**

Virtual regional training on value chain analysis for animal disease risk management



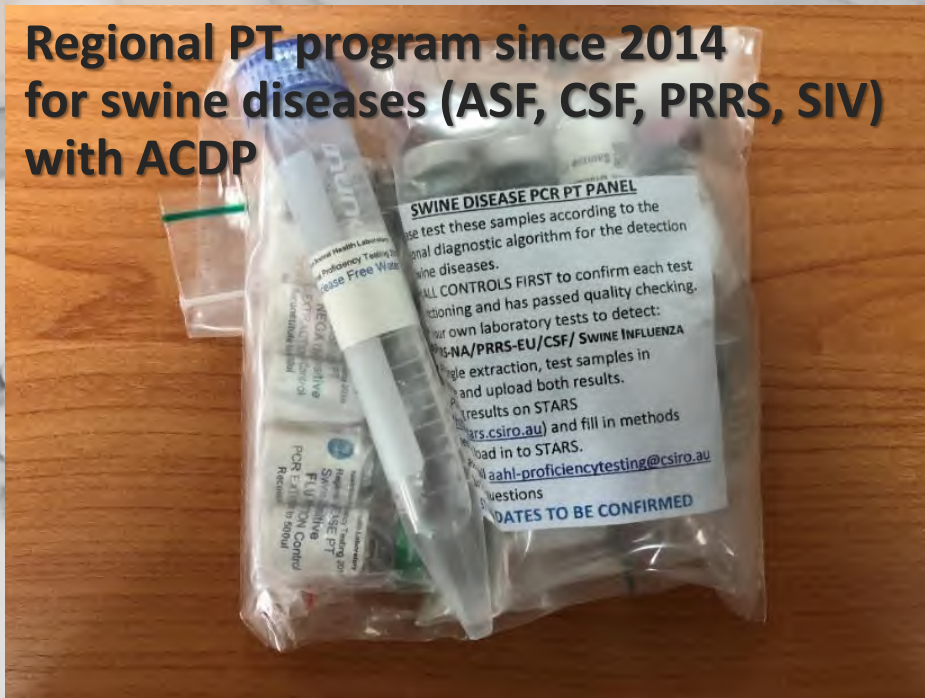
# [DETECTION & EARLY RESPONSE] Animal health authorities system strengthening

Procure diagnostic reagents and consumables for ASF since Sep 2018

Harmonize diagnostic protocols and algorithms

- Card page: <http://www.fao.org/documents/card/en/c/cb1430en> and support laboratory networking

Regional PT program since 2014 for swine diseases (ASF, CSF, PRRS, SIV) with ACDP



Hands-on trainings for lab staff for ASF in Cambodia, Myanmar, DPRK, TL



## Lab assessment (LMT)

Compilation - all LMT results\* for Lab x

LMT Category	dd/mm/yyyy Assessment A	dd/mm/yyyy Assessment B	05/06/201 Current assessment
Geographic location	0.0	55.6	44.4
Laboratory Budget	33.3	22.2	55.6
Basic supply	22.2	22.2	22.2
Organization	33.3	33.3	33.3
Infrastructure	37.0	40.7	63.0
Equipment	20.8	50.0	50.0
Reagent supply	18.5	44.4	59.3
Staff skills + availability	14.3	23.8	47.6
Sample accession	16.7	29.2	87.5
Available technology	16.7	22.2	77.8
Training	47.6	42.9	71.4
Quality Assurance	27.3	66.7	87.9
Biosafety/Biosecurity	41.7	66.7	50.0
Staff Security/Health	0.0	66.7	100.0
Communication means	8.3	25.0	75.0
National lab networking	11.1	33.3	66.7
Laboratory collaboration	0.0	59.3	77.8
<b>Overall level of Lab x functionality (%)</b>	<b>20.5</b>	<b>41.4</b>	<b>62.9</b>

# Key actions for ASF preparedness, response and recovery

## Awareness and engagement

- Awareness and knowledge products:
  - ✓ awareness raising
  - ✓ better understanding of risks and drivers
  - ✓ providing guidelines
  - ✓ sharing best practices

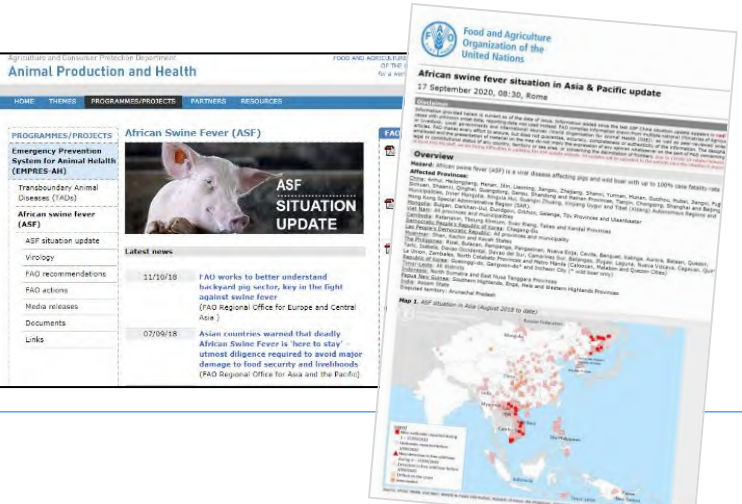
### Risk Assessments



## Cooperation and coordination between FAO and OIE on ASF communication on regular basis

- Risk communication publication <http://www.fao.org/3/ca7561en/CA7561EN.pdf>
- Risk communication training course in modules will be developed for virtual training for South East Asian countries

### Updates on diseases situation



### Focus on specific topics



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[AWARENESS and ENGAGEMENT] Release various IEC materials: All are available!



Learn more about our works



## Beyond numbers



© S. Turton

### Pig production in Cambodia

Pig stock: **3.07 million**

- **33%** by commercial farms
- **66%** by smallholders

*"[A decade ago] We started with 10 and didn't have a farm, just had a small house, where we slept with the animals and children"*

*"I worked so hard to get where I am now, we built this with our bare hands. Now the business has lost so much. I want to cry; I get so emotional."*

*"I keep borrowing from everyone around me, I don't know what will happen in the future."*

*– Ms Kim Long*



© Reuters

## Beyond numbers

Annual household income per capita in Cambodia  
in 2017 is USD 1376.5



*It would take at least **18 years** for Ms Kim Long to re-pay her 25,000 USD debt (without considering interests and other expenses)*



*Health*

**Including Mental Health**

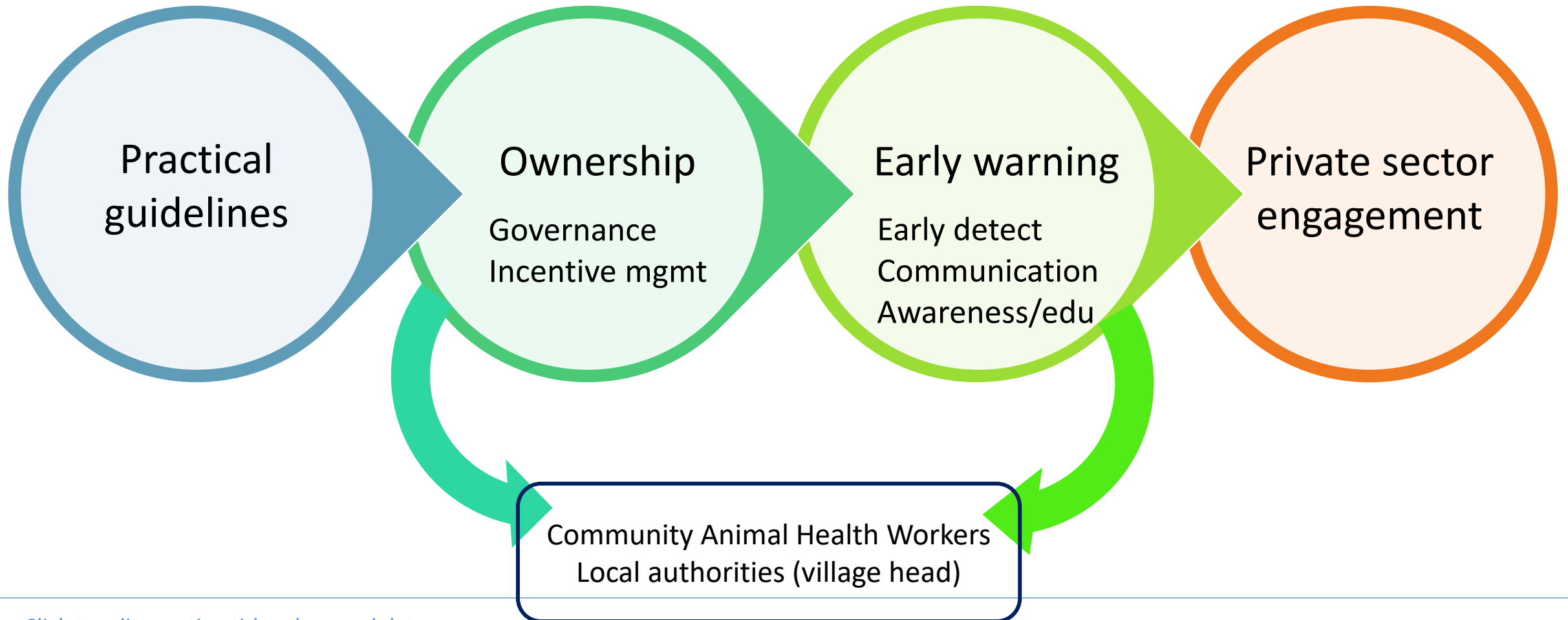
*Poverty traps*

*Education*

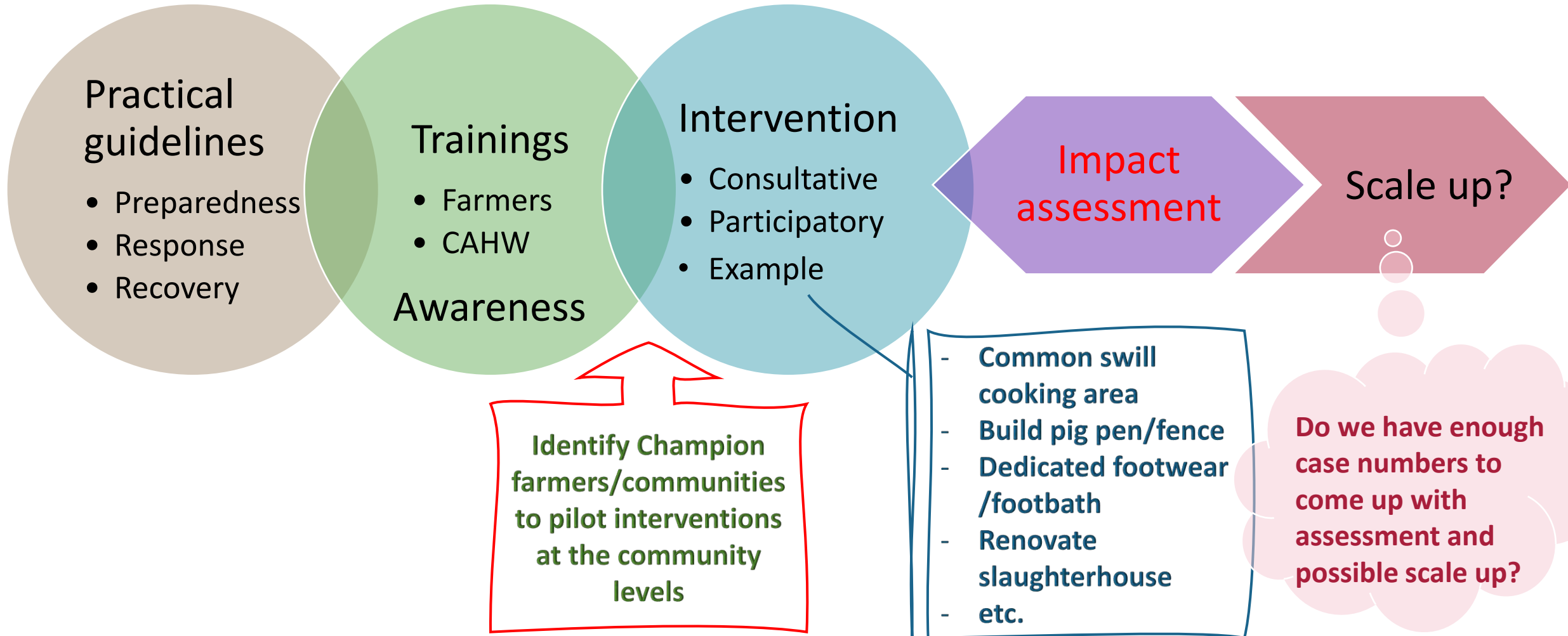
*Nutrition*

# Conceptual Framework for the pig smallholders

PRINCIPLE: Practical (risk base, socio-economic acceptable), working through Champions with ownership, with close M&E



## Concept of approaching community engagement



## [RECOVERY] Support smallholders

### Developed guidelines to support smallholders



### Practical Guidelines for smallholders

- 1) [monitoring and surveillance of ASF](#)
- 2) [culling and disposal of pigs in an ASF outbreak](#)
- 3) [farm biosecurity, slaughtering and restocking](#)
- 4) [clean chain approach for ASF in smallholder settings](#)

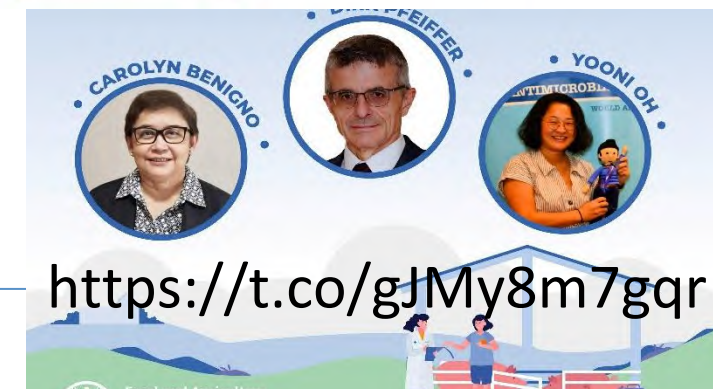


### [ASF Field Manual: Steps in swine handling and sample collection for ASF outbreak investigation](#)

→ Further developed training materials to utilise @ community levels <https://virtual-learning-center.fao.org/mod/page/view.php?id=13158>

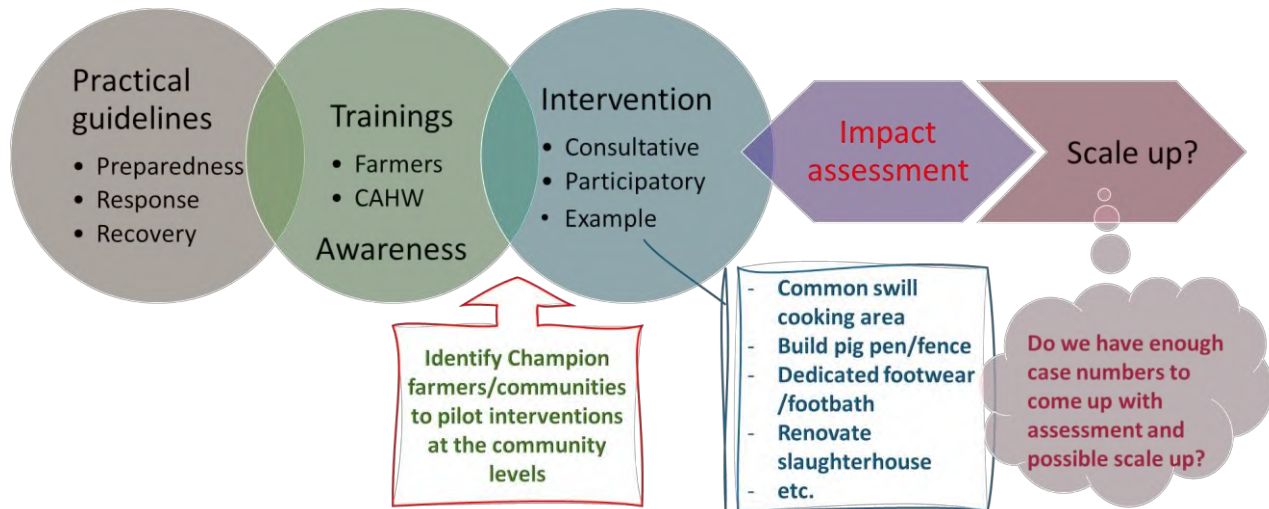
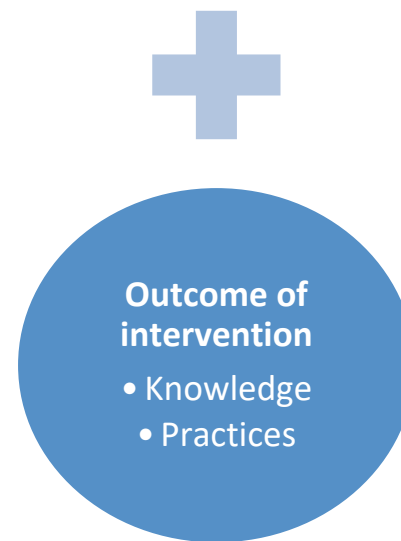
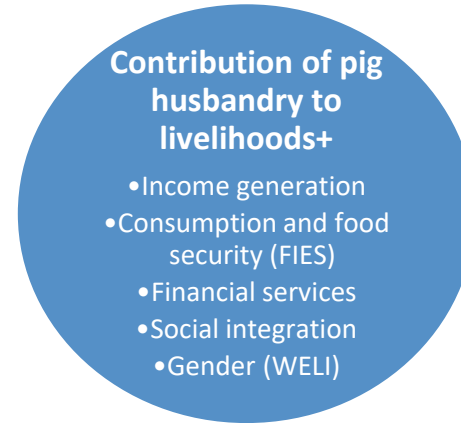


Accessing the course



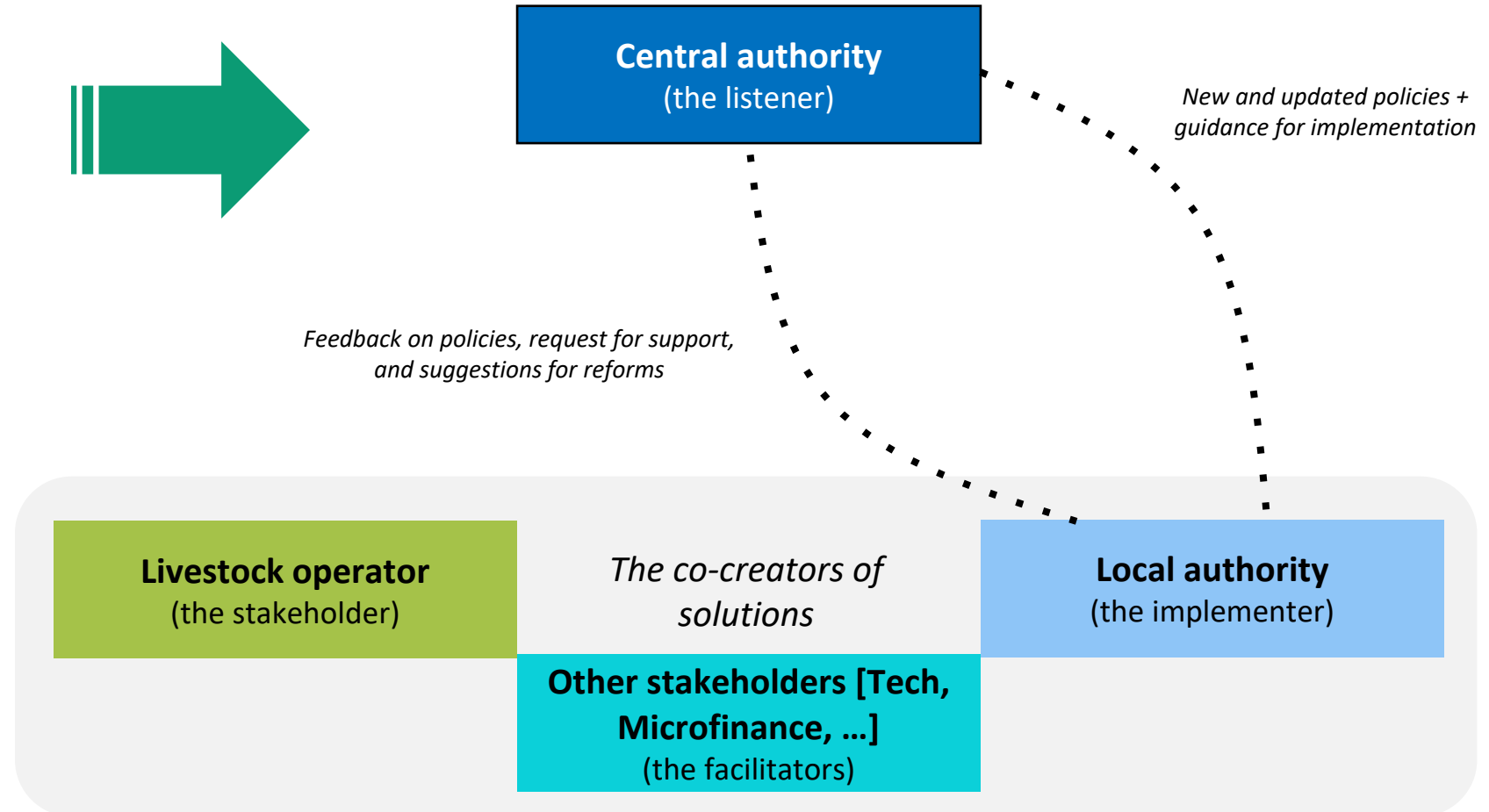
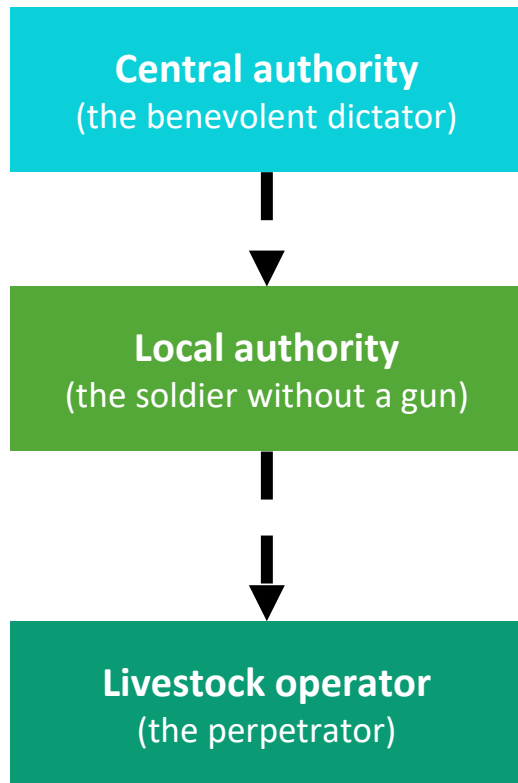


# Supporting smallholders? – HOW?



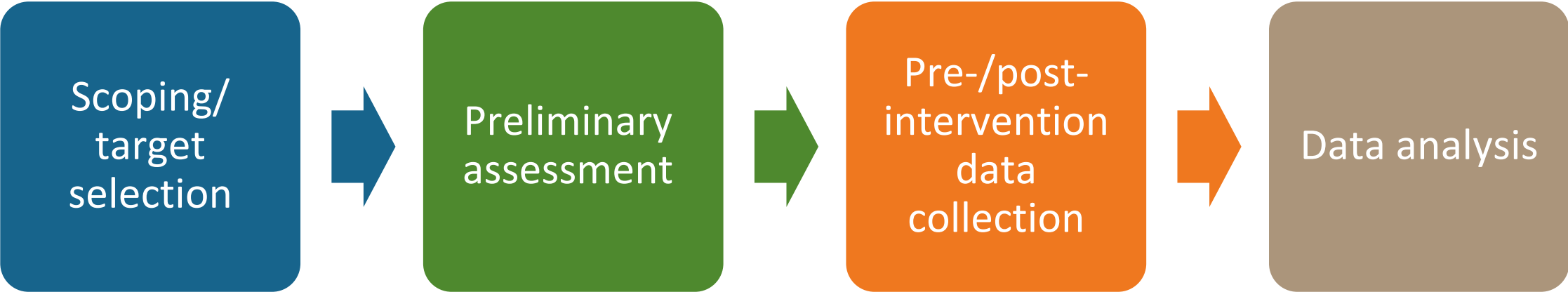


# Optimize policies according to the local context and/or address constraints for implementation



Impact of community-led interventions to mitigate the risk of ASF and provide support for recovery

CABI: community ASF biosecurity interventions





## Community intervention programme – Pre-implementation activities

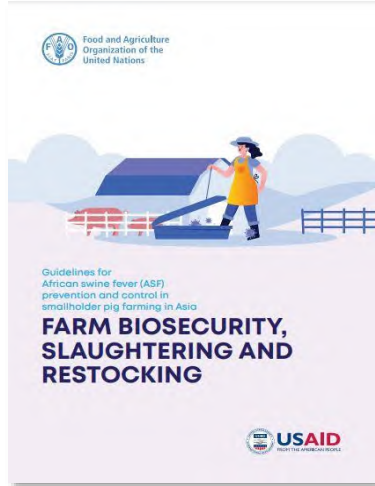
The farmers were asked about their specific needs and the community agreed on:

- briefings by field staff on biosecurity, reporting and swine raising
- perimeter fencing
- footbaths at entry to farms
- wash stations
- water storage containers
- cleaning and disinfection equipment

Materials were ordered through local suppliers so they could be made available at the launching ceremony.



# Community intervention programme – Implementation activities



basic training on ASF, pig raising, & biosecurity practice

- farm biosecurity
- swine nutrition/ safe feeding practices
- assessment of ASF through the clinical signs matrix
- cleaning and disinfection procedures
- mixing and concentration of disinfectants
- keeping a visitor's log
- recording farm expenses
- recommendations for pig farm set up

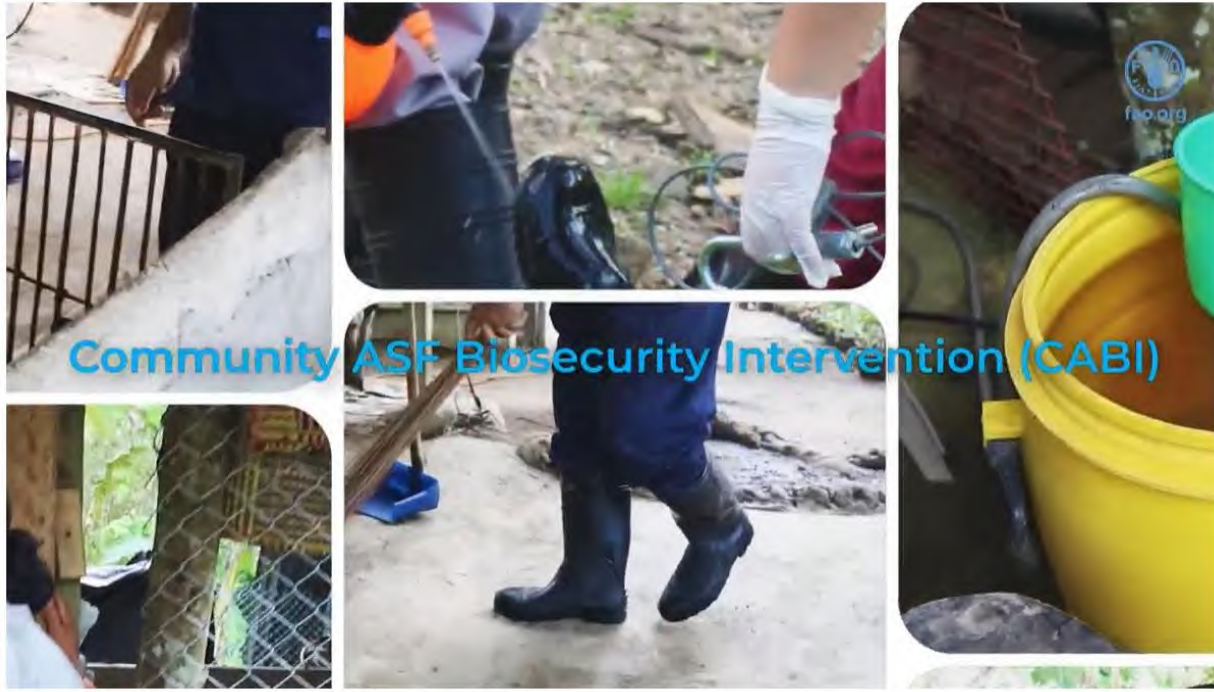


## Community intervention programme – Infrastructure and practices

- The implementation team monitored the instillation of infrastructure and the implementation of practices over a period of three months
- The team was available for support and consultation during this time



Cost per farm: **PHP 6505 or \$325USD**



Documentary video:

<https://youtu.be/1dc2eLhOPOc>

CABI pilot is planned (until August 2024)  
→ Cambodia, Indonesia, Lao PDR,  
Philippines, Thailand



## BIOSECURITY

- Biosecurity ≠ big investment
- Biosecurity = good animal husbandry practice = behaviour change



# Joint Communique – FAO/IUCN/OIE



Food and Agriculture  
Organization of the  
United Nations



SSC  
Species Survival Commission



WORLD ORGANISATION  
FOR ANIMAL HEALTH

Conservation impacts of African swine fever in the Asia-Pacific region  
Joint statement of the Food and Agriculture Organization of the United Nations (FAO),  
International Union for Conservation of Nature Species Survival Commission (IUCN SSC)  
and the World Organisation for Animal Health (OIE)  
24 June 2021

## African swine fever in the Asia Pacific Context

African swine fever (ASF) is a highly contagious and deadly pig disease. Although the ASF virus does not pose a hazard or risk to humans, in the Asian-Pacific Region the disease has severely affected pig production and impacted wild pig populations. ASF has caused huge economic losses and considerable trade disruptions worldwide.

Since the first report of ASF incursion into the Asia-Pacific region in August 2018, the disease has rapidly swept through the region leading to the culling of 100s of millions of pigs in an attempt to control its spread, threatening food security among communities dependent on pig farming. As of June 2021, 15 Member Countries in the region have reported ASF outbreaks.

The **FAO and OIE Initiative for the Global Control of ASF** was launched in 2020 under the umbrella of the GF-TADs<sup>1</sup> as a mechanism to develop, improve, and harmonize national, regional, and global partnerships and coordinate efforts to prevent, mitigate and control this deadly virus.

## How is African swine fever endangering wildlife?

Since the introduction of ASF in Asia-Pacific, reported cases among the widespread and common wild boar (*Sus scrofa*) have been on the rise. ASF cases in wild pigs are not only a concern due to their role in disease transmission and increased challenge for control, but the disease also poses a threat to the region's biodiversity and wildlife management. The region is unique globally being home to 11 native species of wild pigs. Most of these species are threatened and some have populations so small that they face imminent extinction if infected by ASF.

This joint statement reflects the shared and increasing concern about the impact of the virus on the regions' native pig species including significant mortalities reported in the vulnerable bearded pig (*S. barbatus*) in Sabah, Malaysia, due to ASF. The loss of these species could also affect fragile ecological communities, depriving threatened predators of a vital food source and push them further towards the edge of extinction.

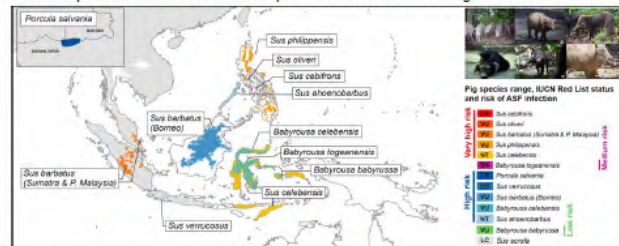


Figure 1. Pig species range in Southeast Asia [Source: Adapted from Lusking et. al., 2000 modified to comply with UN, 2021].

## Key recommendations,

- Increased dialogue between government ministries with responsibility for ASF and relevant experts to develop government policies that mitigate the impact of the disease on wildlife, livestock health and rural livelihoods
- Stronger biosecurity, surveillance, monitoring and response systems across all sectors, inclusive of all domestic and wild animal species
- Collaboration between key sectors and government ministries and urge them to agree on policies that integrate responsibilities on ASF control



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# THANK YOU



[Yooni.Oh@fao.org](mailto:Yooni.Oh@fao.org)