

BIOSECURITY PRACTICES AND READINESS OF BACKYARD PIG FARMERS AGAINST AFRICAN SWINE FEVER IN HUNGDUAN, IFUGAO, PHILIPPINES

LEIZLE M. CODAMON

INTRODUCTION & AIM

Background

- African Swine Fever (ASF) is a highly contagious viral disease of domestic and wild pigs, causing nearly 100% mortality.
- Though not transmissible to humans, it leads to massive economic and social losses.
- Asia, producing ~60% of global pork, has been heavily impacted—over 1 million pigs were culled in China (2018).



Situation in the Philippines

- First confirmed in July 2019, ASF has spread to 73 of 82 provinces.
- Despite the creation of the National Task Force on Animal-Borne Diseases (EO No. 105, s 2020).
- Over 300,000 pigs were culled, resulting in a 20.8% drop in pork production and increased rural food insecurity.



Local Context: Cordillera & Hungduan

- ASF cases have been reported in Abra, Apayao, Benguet.
- Hungduan, Ifugao remained ASF-free at the start of this study, but nearby outbreaks highlight the need for readiness and strong biosecurity.



Study Focus & Aim

- This study assesses the preparedness, biosecurity practices, and ASF awareness of backyard pig farmers in Hungduan, Ifugao.

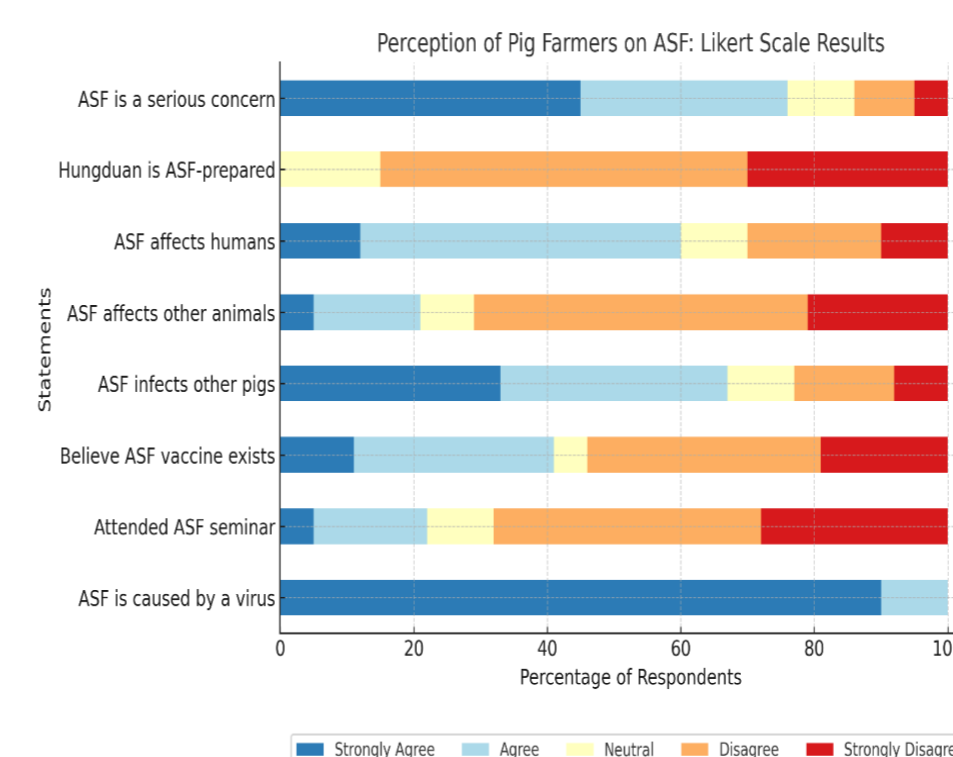
RESULTS & DISCUSSION

Socio-Demographic Profile

- 78 backyard pig farmers (Hungduan, Ifugao)
 - 69% Male, 33% aged 25–34
 - 50% High School level
 - 63% Full-time Farmers
- Young, moderately educated farmers open to biosecurity innovations.



Awareness and Perception on ASF



- 100% aware ASF is viral
- Only 22% attended trainings
- 41% believed a vaccine exists
- 60% thought ASF affects humans
- 85% said municipality not ready; 76% see ASF as a major threat.

Info Source: TV (94%), Radio (1%), Facebook (1%)

Biosecurity Practices

- Proper pig pens: 12%
- Isolation: 40%
- Quarantine: 13%
- Rodent control: 14%
- Swill feeding: 36%
- Waste disposal: 94%
- All-in/all-out: 0%

- ⚠ Low compliance increases ASF risk.
- 💧 Drainage & carcass disposal well-practiced (91%).

METHOD

Study Area and Respondents

- Conducted in Hungduan, Ifugao
- 78 active backyard swine raisers from 8 barangays: Poblacion, Baang, Nunggulunan, Hapao, Boklawan, Abatan, Lubuong, Bangbang
- Respondents identified using RSBSA records from the Municipal Agriculture Office



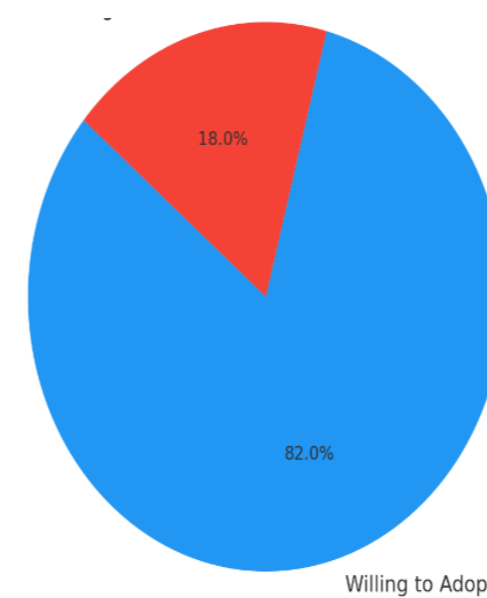
Data Collection

- Instrument: Structured and localized questionnaire (adapted from Bernardes & Peña, 2020)
- Key areas assessed:
 - Demographic profile
 - ASF awareness and perceived risks
 - Biosecurity practices
 - Outbreak preparedness
- Likert Scale (5-point)
 - 1 Strongly Disagree
 - 5 Strongly Agree

Data Processing and Analysis

- Data encoded and visualized in Microsoft Excel 2021
- Descriptive statistics used for summary
- Pearson's Chi-square test (Python SciPy) for variable associations

Readiness to Adopt Improved Practices



Readiness to Improve

- 82% willing to adopt better biosecurity if trained & supported
- No gender difference ($p=1.00$)

👉 Strong potential for improvement through extension and outreach.

CONCLUSION

Backyard pig farmers in Hungduan, Ifugao are aware of African Swine Fever (ASF), but biosecurity practices remain limited.

⚠ Gaps identified:

- Epidemic preparedness
- Farm sanitation and infrastructure
- Training participation

👉 Opportunities:

- Farmers' willingness to improve practices
- Strengthen community-based surveillance, targeted education, and local veterinary support

🚫 Common risky practices:

- Swill feeding
- Poor rodent control
- Misconceptions about ASF transmission and vaccination

FUTURE WORK / REFERENCES

- [1] Bernardes AC, Peña BR. Assessing backyard pig farmers' preparedness for African Swine Fever outbreaks. J Vet Anim Sci. 2020; 48:112–120.[2] Castillo LA. Community-based approaches to animal disease surveillance and control. Vet Epidemiol. 2006; 34:221–230.[3] Castillo LA, Eusebio JD. Improving livestock extension services in marginal areas. Asian J Anim Sci. 2006;21(3):145–150.