

Understanding the knowledge, attitudes, and practices of stakeholders in reporting African swine fever cases in Abuyog, Leyte, Philippines

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Supplementary Information

Supplementary Information-1

The English version of the informed consent for the Knowledge, Attitudes, and Practices (KAP) study on African swine fever in Abuyog, Leyte.

Informed Consent

Dear Participants,

This informed consent form has two parts: The Information Sheet, which contains a brief description and purpose of the research, and The Certificate of Consent, where you signify your consent to participate in a survey on knowledge, attitudes, and practices toward reporting of suspected African swine fever cases in Abuyog, Leyte.

You are invited to participate in this research because we feel that your experience as one of the contributors in the swine industry here in Abuyog, Leyte, can contribute much to understanding African swine fever in Abuyog, Leyte. Your participation in this research is entirely voluntary, and you have the option not to continue at any stage of the survey should you decide to opt-out.

Conduct of Survey

1. Participation in this survey is ENTIRELY VOLUNTARY.
2. Your information will be assigned a code number, and the list connecting your name to this number will be kept in a secure location to which only primary researchers have access.
3. The survey will ONLY LAST FOR ABOUT 15 MINUTES. Your answers will be part of the research that will take months to complete the analysis.

Risks and Benefits Involved in Participating in this Survey

To the best of the researcher's knowledge, the survey poses NO RISK TO ALL THE PARTICIPANTS. However, if you feel there is a risk in sharing some of your personal or confidential information, or if you feel uncomfortable answering some of the topics, you can end the survey at any time.

The survey may not directly benefit you, and no incentives of any kind will be given. Still, your participation will help us understand African swine fever in Abuyog, Leyte.

Data Privacy

ALL INFORMATION you share with us will be kept COMPLETELY CONFIDENTIAL under Republic Act 10173, also known as the Data Privacy Act of 2012. Names or other identifying information will not be used when discussing or reporting data, and only aggregated data will be shared with the public. All printed data files will be kept in a locked cabinet, while online data will be held in a secured computer or equivalent secure locations deemed appropriate for ten (10) years. As your participation in this research is entirely voluntary, you may withdraw from your participation whenever you wish without penalty.

Certificate of Consent

With my full knowledge and understanding of the above declarations, I hereby wholly give my consent and confirm my participation of my own free will and volition in the conduct of this survey.

Name and Signature

Date

Researcher's Declaration

I have accurately provided the information sheet to the potential participant. To the best of my ability, I ensured that the participant understood that the online survey would be done.

I confirm that the participants were given the opportunity to ask questions asked and have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

Name and Signature of the Researcher

Date

Supplementary Information-2

The English version with translation of the questionnaire for the Knowledge, Attitudes, and Practices (KAP) study on African swine fever in Abuyog, Leyte.

PART 1: SOCIODEMOGRAPHIC CHARACTERISTICS

A. Participant Information (Farmer — Mag-uuma)

Name: _____ Date: _____
Address: _____ Age: _____ Sex: _____

Civil status: () Single () Married () Widowed () Separated

Educational attainment (Unsa imong nahuman sa pagskwela?):
() Elementary () High school () Vocational () College

Main source of income (Pangunang tinubdan sa kita?): _____

Estimated income (Sweldo sa usa ka bulan): _____

Experience in pig raising (number of years) (Pila ka na ka-tuig nag-bubuhi ug baboy?): _____

Type of pigs raised in farm (Klase sa mga baboy nga gi buhi sa umahan):
() Breeder sow (anayan) () Fatteners (pasi)
() Breeder boar (butakalan) () Combination (tampo)

Location of your farm (Lokasyon sa imo umahan): _____

Type of pigs kept (Unsa na mga klase sa imo gibubuhi na mga baboy?):
() Native () Mixed () others: _____

Number of pigs based on their type (Pila ka baboy ang naa sa imo base sa ilang klase?):

	Number of Animal
Sow (anay)	
Boar (botakal)	
Piglet (pasi)	
Weanling (tipasi)	
Grower	
Finisher	

Purpose of keeping swine (Rason kay nganon ka nag bubuhi ug baboy?):
() home consumption () for sale () others: please specify _____

Method of rearing:
() tethered (gi-higot)
() scavenging (gi-buhian)
() caged (gi-tangkal)
() semi-scavenging (gi-buhian sa aga, sa gab-i dire)

Animal contact:
() Contact with dogs (may kontak sa ayam)
() Contact with cats (may kontak sa uding)
() Contact with rats (may kontak sa iraga)
() Contact with birds (may kontak sa langgam)
() Mixing of different pig stages (tampo-tampo sa tanan na baboy/mananap)
() Others (please specify) _____

Pig pen information

Wall types (Pader/tangkal)

- ☐ Wood/Bamboo fence (kahoy/kawayan)
☐ Metal bars (puthaw)
☐ Concrete (semento)
☐ Woven wire (alambre)

Floor-type (Salog)

- ☐ Concrete slats (Semento) ☐ Plastic flooring
☐ Soil/Hay (tuna/uhot) ☐ Steel and cast (puthaw)
☐ Others (please specify) _____

Waterer and Feeder (Tubigan ngan kaonan)

- ☐ With waterer and feeder (May tubigan ngan kaonan)
☐ With waterer but without feeders (may tubigan pero waray kaonan)
☐ With feeder but without waterer (may kaonan pero waray tubigan)
☐ Both without waterer and feeder (waray kaonan ngan tubigan)
☐ Others (please specify) _____

Feeding practice:

- ☐ left leftover scavenging (buntol/pasaw) ☐ commercial feeds (feeds)

Trainings attended related to ASF (Mga pag-aram nga may kalabotan sa ASF na imo gin apilan):

B. Participant Information (Live Pig or Meat Seller — Parag-baligya ug buhi na baboy o karne sa baboy)

Name: _____ Date: _____

Address: _____ Age: _____ Sex: _____

Civil status: ☐ Single ☐ Married ☐ Widowed ☐ Separated

Educational attainment (Unsa imong nahuman sa pagskwela?):

☐ Elementary ☐ High school ☐ Vocational ☐ College

Main source of income (Pangunahin na pangita?): _____

Estimated income (Sweldo sa usa ka bulan): _____

Experience in pig selling (number of years) (Pila naka ka-tuig nagbabaligya ug baboy?): _____

Main source of pigs or pig meat (Asa man nimo ginkukuha ang imo gibabaligya na baboy o karne sa baboy?):

Where do you sell your live pigs or pig meat? (Asa man nimo gibabaligya ang baboy o karne sa baboy?): _____

Trainings attended related to ASF (Mga pag-aram nga may kalabotan sa ASF na imo gin apilan):

C. Participant Information (Butcher — Parag-ihaw)

Name: _____ Date: _____

Address: _____ Age: _____ Sex: _____

Civil status: () Single () Married () Widowed () Separated

Educational attainment (Unsa imong nahuman sa pagskwela?):

() Elementary () High school () Vocational () College

Main source of income (Pangunahin na pangita?): _____

Estimated income (Sweldo sa usa ka bulan): _____

Experience in the pig market (number of years) (Pila naka ka-tuig sa industriya sa baboyan?): _____

Trainings attended related to ASF (Mga pag-aram nga may kalabotan sa ASF na imo gin apilan):

D. Participant Information (Government Personnel — Trabahante sa gobyerno)

Name: _____ Date: _____

Address: _____ Age: _____ Sex: _____

Civil status: () Single () Married () Widowed () Separated

Educational attainment (Unsa imong nahuman sa pagskwela?):

() Elementary () High school () Vocational () College

Educational attainment (Unsa ang imo nahumanan sa pagskwela?):

() Elementary () High school () Vocational () College

Main source of income (Pangunahin na pangita?): _____

Estimated income (Sweldo sa usa ka bulan): _____

Experience in the swine sector (number of years) (Pila naka ka-tuig sa sektor sa baboyan?): _____

Educational background relating to the job (Edukasyon nga may labot sa trabaho): _____

Role in the swine sector (Papel sa sektor sa baboyan):

() Office job

() On the ground work

() Barangay-level governance

Trainings attended related to ASF (Mga pag-aram nga may kalabotan sa ASF na imo gin apilan):

PART 2: KNOWLEDGE QUESTIONS (adapted and modified from Chenais et al., 2014; Bernardes and Peña, 2020)

1. Have you heard about African Swine Fever (ASF) before? (Nakabati ka na ba mahitungod san African Swine Fever?)
2. What do you think is/are the causes of ASF? (Para sa imo, ano it hinungdan sa ASF?)
3. What are the routes of spread of ASF? (Ano an mga paagi sa pagkalat san ASF?)
4. What are the clinical signs of ASF? (Ano an mga sintomas san ASF?)
5. Would you be able to recognize ASF in a live pig? If yes, what are the clinical signs? (Makikilala mo ba kun an buhi nga baboy may ASF? Kun oo, ano man it mga sintomas?)
6. Would you be able to recognize ASF in pig's meat? If yes, what are the clinical signs? (Makikilala mo ba kun an karne na baboy may ASF Kun oo, ano man it mga senyales?)
7. Do you know how to report a suspected case of ASF? If yes, how is it reported? (Maaram ka ba kun aanhon pag report an ginsuspetsahan na may kaso hin ASF? Kun oo, aanhon man pag report?)

Seminar Attendance

8. Have you attended in any ASF-related seminars or training? If yes, please indicate. (Naka attend ka na ba sin ASF-related na mga seminar o training? Kun oo, pakibutang.)

PART 3: ATTITUDE QUESTIONS (adapted and modified from Vergne et al., 2016)

What is your opinion about these statements? Check your answers in the table. (Ano it imo opinion mahitungod hini na nga mga pulong? Tseka an imo baton ha kahon.)

ATTITUDE QUESTIONS	<i>Strongly disagree</i>	<i>Disagree</i>	<i>Agree</i>	<i>Strongly Agree</i>	<i>Neutral</i>
<i>Case Reporting</i>					
1. Suspected ASF cases should be reported to the proper authorities right away. (An mga gindududahan na kaso hin ASF angay dayon ig report ha sakto na mga awtoridad.)					
2. When ASF is suspected in a live pig, waiting a few days before reporting to authorities is fine. (Kun may ada gindudahan nga kaso hin ASF ha buhi nga baboy, pwede la mag-hulat hin pira ka adlaw ugsa ireport)					
3. I can handle dealing with a suspected case of ASF without the help of authorities. (Makaya ko areglaron an gin dudahan nga kaso sa ASF bisanpa waray bulig han awtoridad.)					

4. Reporting a suspected case of ASF is bad for the reputation of the business. (An pag-report han gin dududahan na kaso hin ASF in dire maupay para ha reputasyon han negosyo.)					
5. I have to make sure that the symptoms exhibited by the pigs are actually that of ASF before I report it to the proper authorities. (Kinahanglan nakon siguraduhon nga ASF gud an mga sintomas nga gin papakita han mga baboy ugsa ko ini igreport ha mga awtoridad.)					
<i>Selling and Consuming</i>					
6. Eating ASF-infected pig meat and pig products is fine. (Pwede la kumaon sin karne na natakdan sin ASF.)					
7. ASF-infected pig meat and products can still be sold. (An mga baboy na apektado o namatay tikang han ASF pwede la i-igbaligya.)					

PART 4. PRACTICE QUESTIONS (adapted and modified from Chenais et al. [16])

1. Do you consult a veterinarian if your pig shows clinical signs? (Na konsulta k aba sa beterinario kun an imo baboy nag pakita sin mga sintomas?)
2. Do you slaughter or sell pigs that show clinical signs? (Na ihaw ka ba sin baboy na nag pakita sin mga sintomas sin sakit?)
3. How many days does it take before you notify the authorities about your sick pigs? (Pira ka adlaw an gin abot ugsa ka nagreport ha awtoridad?)
4. Have you reported a suspected case of ASF to the proper authorities? If yes, how did you report it? (Nagreport kana ba hin gin dududahan na kaso hin ASF ha sakto nga awtoridad? Kun oo, gin ano mo pagreport?)
5. Have you seen an ASF case but not reported it to authorities? If yes, why? (Nakakita ka na ba sin kaso hin ASF pero waray nimo gin report sa mga awtoridad? Kun oo, kay ano man?)
6. Have you sold live pigs/pig products with signs of ASF? If yes, where did you sell it and what were the signs? (Nakabaligya ka na ba sin baboy o karne nga may ada sintomas sa ASF? Kun oo, diin man nimo gin baligya ngan ano an mga sintomas?)

Supplementary Information-3

The KAP scoring system was adopted in this study.

Knowledge Questions	Correct (1 point)	Partly correct (0.5)	Incorrect (0)
<i>ASF Causative Agent, Transmission, and Clinical Signs (CTC)</i>			
Have you heard about African Swine Fever (ASF) before?	Yes		No
What do you think is/are the causes of ASF?	ASF virus	Virus	I don't know or other answers
What are the routes of spread of ASF?	0.2 point for each: Contact with infected pigs Eating contaminated Food waste Eating contaminated feeds Eating contaminated garbage Contact with contaminated fomites Ticks		I don't know or other answers
What are the clinical signs of ASF?	0.09 point for each: High fever Anorexia Lethargy Nosebleed Reddening ears and flanks Vomiting Diarrhea Nasal secretions Labored breathing and coughing Skin rashes Sudden death		I don't know or other answers
<i>ASF Recognition</i>			
Would you be able to recognize ASF in a live pig? If yes, what are the clinical signs?	0.09 point for each: High fever Anorexia Lethargy Nosebleed Reddening ears and flanks Vomiting Diarrhea Nasal secretions Labored breathing and coughing Skin rashes Sudden death		I don't know or other answers
Would you be able to recognize ASF in pig's meat? If yes, what are the clinical signs?	Hemorrhages or bruises all over pig meat		I don't know or other answers
<i>ASF Reporting</i>			

Do you know how to report a suspected case of ASF? If yes, how is it reported?	Either of the following: Through the municipal agriculture office Through barangay officers Through the municipal veterinarian Through other veterinarians		I don't know or other answers
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Attitude Questions	<i>Strongly disagree (1 point)</i>	<i>Disagree (2 points)</i>	<i>Agree (4 points)</i>	<i>Strongly Agree (5 points)</i>	<i>Neutral (3 points)</i>
<i>Case Reporting</i>					
1. Suspected ASF cases should be reported to the proper authorities right away.					
2. When ASF is suspected in a live pig, waiting a few days before reporting to authorities is fine.					
3. I can handle dealing with a suspected case of ASF without the help of authorities.					
4. Reporting a suspected case of ASF is bad for the reputation of the business.					
5. I have to make sure that the symptoms exhibited by the pigs are actually that of ASF before I report it to the proper authorities.					
<i>Selling and Consuming</i>					
6. Eating ASF-infected pig meat and pig products is fine.					
7. ASF-infected pig meat and products can still be sold.					

Practices Questions	Acceptable (1)	Partly acceptable (0.5)	Not acceptable (0)
<i>Early Reporting Steps</i>			
Do you consult a veterinarian if your pig shows clinical signs?	yes		no
Do you slaughter or sell pigs that show clinical signs?	no		yes
How many days does it take before you notify the authorities about your sick pigs?	Less than 7 days		More than 7 day
<i>Reporting Protocol</i>			
Have you reported a suspected case of ASF to the proper authorities? If	Either of the following • Through the municipal agriculture office	Reporting but not to proper authorities	Not reporting

yes, how did you report it?	<ul style="list-style-type: none"> • Through barangay officers • Through other veterinarians 		
Have you seen an ASF case but not reported it to authorities? If yes, why?	Either of the following: <ul style="list-style-type: none"> • I don't know how to report • To avoid conflict with the neighbor 		Not reporting
Have you sold live pigs/pig products with signs of ASF? If yes, where did you sell it and what were the signs?	No		Yes
<i>Attendance to seminar and training</i>			
Have you attended in any ASF-related seminars or training? If yes, please indicate.	Either of the following: Through the municipal agriculture office Through barangay officers Through other veterinarians		None

Supplementary Information-4

Sociodemographic characteristics of stakeholders (n = 392) in Abuyog, Leyte

VARIABLE		RANGE	n	%	95% CI
Age (years)		23-86			
(Mean: 47.45; Median: 48.00)					
	Middle aged	22-45	170	43.37%	38.55 – 48.31
	Old aged	46-60	165	42.09%	37.30 – 47.03
	Senior	>61	57	14.54%	11.40 – 18.37
Sex					
	Male		178	45.41%	40.55 – 50.36
	Female		214	54.59%	49.64 – 59.45
Civil Status					
	Single		63	16.07%	12.77 – 20.03
	Married		286	72.96%	68.36 – 77.12
	Widowed		42	10.71%	8.02 – 14.17
	Separated		1	0.26%	0.05 – 1.43
Education					
	Elementary		122	31.20%	26.81 – 35.96
	Highschool		202	51.66%	46.72 – 56.58
	Vocational		14	3.58%	2.14 – 5.92
	College		53	13.55%	10.51 – 17.30
Main source of income					
	Pigs		74	18.88%	15.31 – 23.05
	Agribusiness		197	50.26%	45.33 – 51.18
	*Others		121	30.87%	26.50 – 35.61
Monthly income (Php)					
(Mean: 7,824; Median: 7000)		0-100,000.00			
Experience in swine sector (years)					
(Mean: 12.78; Median: 10)		1-40			
Note. Asterisk (*) means government jobs, sari-sari store, tuba seller, significant other's income, and pension, etc.					