

**Survey questionnaires [ID.01-ASF Retailers]: Assessing impacts of COVID-19  
pandemic on animal source food retailers and consumers in Thailand  
(English translation)**

**A. Participant Information**

**A1. Type of ASF Retailer:** *(select 1 appropriate answer according to the MAIN ASF type is sold)*

1. Pork      2. Poultry (chicken, duck, ...)      3. Beef      4. Fish/Seafood

**A2. Gender:**

1. Male  
2. Female

**A3. Year of birth:** ..... (e.g. 1980)

**A4. Sub-district:** ..... **District:** .....

**A5. Area:**

1. Urban/Peri-urban  
2. Rural

**A6. Highest education level:**

1. Illiterate  
2. Elementary school  
3. Secondary school  
4. High school  
5. Colleges, university, or higher degrees

**A7. What is your business type?** *(select 1 answer)*

1. Wholesale only  
2. Retail only  
3. Both retail and wholesale  
4. Other (specify): .....

**B. Impact of COVID-19 to ASF Business and Income**

**B1. At each below period, what is an average amount (estimate) of ASF (Kg) you sell per day?** *(fill the amount of ASF type (if any) which you have sold, or you are selling by each period)*

| ASF types<br><i>(any applicable)</i> | At the same time last year<br><i>(before Feb/Mar 2020)</i> | During partial lockdown<br><i>(in weeks of April 2020)</i> | At present<br><i>(from May 2020 to now)</i> |
|--------------------------------------|--|--|---|
| Pork                                 | .....  | .....  | .....                                       |
| Poultry<br>(chicken, duck, ...)      | .....  | .....  | .....                                       |
| Beef                                 | .....  | .....  | .....                                       |
| Fish/seafood                         | .....  | .....  | .....                                       |

**B2. At each below period, from whom do you often purchase animal source food type?**

(select source type which applied)

(unit: Times/week), DK = don't know

| Market types,<br>period, and<br>frequency<br>(any applicable) | At the same time last year<br>(before Feb/Mar 2020) |              |              |             |       |    | During partial lockdown<br>(in weeks of April 2020) |              |              |             |       |    | At present<br>(from May 2020 to now) |              |              |             |       |    |
|---|---|--------------|--------------|-------------|-------|----|---|--------------|--------------|-------------|-------|----|--------------------------------------|--------------|--------------|-------------|-------|----|
|   | Every<br>day  | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK | Every<br>day  | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK | Every<br>day                         | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK |
| Farmers   |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Wholesalers/<br>middleman                                     |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Slaughterhouse  |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Self-provide  |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Others (specify):<br>.....                                    |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |

**B3. During partial lockdown (in weeks of April 2020), how easy for you to buy animal source food for selling COMPARED to before COVID-19 outbreak? (before Feb/Mar 2020, or at the same time last year)**

1. Easier
2. Normal
3. More difficult
4. Do not know

**B4. At present (from May 2020 to now), how easy for you to buy animal source food for selling COMPARED to before COVID-19 outbreak? (before Feb/Mar 2020, or at the same time last year)**

1. Easier
2. Normal
3. More difficult
4. Do not know

**B5. At each below period, how many ASF shops (like your meat type) in this market?**

| Period  | Number of shops | Don't know |
|---|-----------------|------------|
| <b>Before COVID-19 outbreak</b><br>(before Feb/Mar 2020, or at the same time last year) | .....           | .....      |
| <b>During partial lockdown</b><br>(in weeks of April 2020)                              | .....           | .....      |
| <b>At present</b><br>(from May 2020 to now)   | .....           | .....      |

**B6. At each below period, which way and how frequent have you operated the ASF selling? (times/week)**

| Selling way<br>and frequency<br>(any applicable)         | At the same time last year<br>(before Feb/Mar 2020) |              |              |             |       |    | During partial lockdown<br>(in weeks of April 2020) |              |              |             |       |    | At present<br>(from May 2020 to now) |              |              |             |       |    |
|--|---|--------------|--------------|-------------|-------|----|---|--------------|--------------|-------------|-------|----|--------------------------------------|--------------|--------------|-------------|-------|----|
|  | Every<br>day  | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK | Every<br>day  | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK | Every<br>day                         | 3-6<br>times | 1-2<br>times | < 1<br>time | Never | DK |
| Only sell at the<br>market                               |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Selling at other<br>places                               |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Using online/<br>phone (then<br>deliver to<br>consumers) |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |
| Others<br>(specify):<br>.....                            |   |              |              |             |       |    |   |              |              |             |       |    |                                      |              |              |             |       |    |

**B7. At each below period, what is your labor resource and time involved in your ASF selling?**

| Content  | At the same time last year<br>(before Feb/Mar 2020) | During partial lockdown<br>(in weeks of April 2020) | At present<br>(from May 2020 to now) |
|--|---|---|--------------------------------------|
| <b>Labor</b> – number of people involve your ASF selling ( <i>person</i> ) | .....   | .....   | .....                                |
| <b>Time</b> – Total number of selling hours/day ( <i>hour</i> )            | .....   | .....   | .....                                |

**B8. Compared to before COVID-19 outbreak (before Feb/Mar 2020, or at the same time last year), how is your ASF selling income changed? (Filled the % accordingly if any)**

| Compared period to   | No change | Decreased (%) | Increased (%) | Don't know |
|--|-----------|---------------|---------------|------------|
| <b>During partial lockdown</b><br>(in weeks of April 2020) | .....     | .....         | .....         |            |
| <b>At present</b><br>(from May 2020 to now))               | .....     | .....         | .....         |            |

↓                      ↓                      ↓                      ↓  
 Move to      C                      B9                      B10                      C

**B9. What has caused decreased income from your selling? (choose suitable -can choose more than 1 answers-)**

1. Markets closed/Seller were not allowed to sell due to partial lockdown
2. Cannot get ASF products to sell due to lack of ASF provider
3. Buyers go to market less frequency compared to before
4. Buyers bought less than before (e.g. due to higher price)
5. Other cheaper food types available
6. Other (specify): .....
7. Do not know

**B10. What has caused increased income from your selling? (choose suitable answers)**

1. Increase number of customers, due to the ASF shops close
2. Customers buy more ASF in order to store the food
3. The customer buys more ASF (e.g. because the price is cheaper than other meat)
4. Due to increasing selling time per day (e.g. whole day instead of half day)
5. Other (specific): .....
6. Do not know

**C. KAP on COVID-19 and Prevention Measures****C1. Have you heard about COVID-19 and its pathogen?**

1. Yes, due to virus
2. Yes, due to bacteria
3. Yes, due to parasite/protozoan
4. Yes, but don't know which pathogen
5. Neither heard about the disease nor know its pathogen

**C2. How do you think COVID 19 spreads?**

| Content  | Very likely | Possible, but not so likely | Not possible | Don't know |
|--|-------------|-----------------------------|--------------|------------|
| 1. Through air   |             |                             |              |            |
| 2. Animal contact  |             |                             |              |            |
| 3. Through vector borne (insects: mosquitos, flies, ...)                         |             |                             |              |            |
| 4. From a person who is sneezing and coughing                                    |             |                             |              |            |
| 5. From touching surfaces/objects with respiratory droplets from infected people |             |                             |              |            |
| 6. From eating livestock products  |             |                             |              |            |
| 7. From eating wildlife products   |             |                             |              |            |
| 8. From contacting healthy people  |             |                             |              |            |

**C3. What do you think is important to stop the spread of the disease?**

| Content  | Very important | Little important | Not important | Don't know |
|--|----------------|------------------|---------------|------------|
| 1. Only staying at home  |                |                  |               |            |
| 2. Not meeting with strangers  |                |                  |               |            |
| 3. Avoid eating wildlife   |                |                  |               |            |
| 4. Avoid eating any animal sourced food  |                |                  |               |            |
| 5. Avoid eating any raw products (salad, fruit)                                    |                |                  |               |            |
| 6. Washing hands frequently  |                |                  |               |            |
| 7. Covering your mouth and nose while sneezing and coughing                        |                |                  |               |            |
| 8. Avoid contact with people if you are having any symptoms                        |                |                  |               |            |
| 9. Wear a mask when going out of the house   |                |                  |               |            |
| 10. Do social distancing when going out of the house                               |                |                  |               |            |
| 11. Keeping people in quarantine after they returned from risky areas              |                |                  |               |            |
| 12. Keeping those people in quarantine who were in contact with an infected person |                |                  |               |            |

**C4. What are you doing to stop the disease yourself?**

| Content   | I try to do this as much as possible | I do this sometimes | I do not do this | Not applicable |
|---|--------------------------------------|---------------------|------------------|----------------|
| 1. Only staying at home                                     |                                      |                     |                  |                |
| 2. Not meeting with strangers                               |                                      |                     |                  |                |
| 3. Avoid eating wildlife                                    |                                      |                     |                  |                |
| 4. Avoid eating any animal sourced food                     |                                      |                     |                  |                |
| 5. Avoid eating any raw products (salad, fruit)             |                                      |                     |                  |                |
| 6. Washing hands frequently                                 |                                      |                     |                  |                |
| 7. Covering your mouth and nose while sneezing and coughing |                                      |                     |                  |                |
| 8. Avoid contact with people if you are having any symptoms |                                      |                     |                  |                |
| 9. Wear a mask when going out of the house                  |                                      |                     |                  |                |
| 10. Do social distancing when going out of the house        |                                      |                     |                  |                |

## D. Food Safety Practices and Behaviors

### D1. Frequency of food safety practices

| Food safety practices                             | At the same time last year<br>(before Feb/Mar 2020) |       |            |        |       | During partial lockdown<br>(in weeks of April 2020) |       |            |        |       | At present<br>(from May 2020 to now) |       |            |        |       |
|---|---|-------|------------|--------|-------|---|-------|------------|--------|-------|--------------------------------------|-------|------------|--------|-------|
|   | Very often  | Often | Some times | Rarely | Never | Very often  | Often | Some times | Rarely | Never | Very often                           | Often | Some times | Rarely | Never |
| 1. Frequency of washing/cleaning your stall/shop  |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 2. Frequency of disinfection your stall/shop      |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 3. Frequency of washing your hands                |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 4. Frequency of disinfection your hands           |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 5. Wearing gloves?                                |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 6. Wearing mask?                                  |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 7. Your ASF is checked for quality by authorities |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 8. Eating/drinking at shop                        |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |
| 9. Keep fresh ASF at cool facility or on ice      |   |       |            |        |       |   |       |            |        |       |                                      |       |            |        |       |

### D2. Food safety perception and behavior

| Items on food safety perception  | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Don't know |
|--|----------------|-------|---------|----------|-------------------|------------|
| 1. Washing/cleaning shop equipment, facilities reduce my health risk                     |                |       |         |          |                   |            |
| 2. Disinfection shop equipment and facilities is necessary                               |                |       |         |          |                   |            |
| 3. Washing and disinfection my hands can reduce my health risk                           |                |       |         |          |                   |            |
| 4. Washing and disinfection my hands during selling ASF is necessary                     |                |       |         |          |                   |            |
| 5. Wearing mask can reduce my health risk  |                |       |         |          |                   |            |
| 6. Wearing mask is necessary   |                |       |         |          |                   |            |
| 7. Food inspection for quality and safety by authorities is necessary                    |                |       |         |          |                   |            |
| 8. Seller health check is important  |                |       |         |          |                   |            |
| 9. My consumers are concerned my health (and not happy) when I wear mask during selling? |                |       |         |          |                   |            |
| 10. My consumers concerning my health (and not happy) when I wear gloves during selling? |                |       |         |          |                   |            |

**Thank for your participation!**