KAP & Choice Experiment Questionnaire_Fish Consumer

Name of the enumerator

- ◯ Madhu Sudan Dey
- ◯ Md. Rashedul Islam
- ◯ Shad Man Shadi Jahin
- ◯ Mofazzel Hossen
- ◯ Rakibul Islam
- ◯ Md. Farid Dewan
- ◯ Debashish Dey Tarafder
- ◯ Md. Nafiul Adedeen Nafi
- ◯ Nafiul Islam Rushad
- ◯ Aniqa Sarwat Sadia
- ◯ Jannat Ara Ritu
- ◯ Md. Tauhid Ahmed
- ◯ Md. Ali Hosen Bhuiya
- ◯ Rubel Ahmed
- ◯ Sabysachi Goon
- ◯ Md. Saiful Islam
- ◯ Shaila Sulana Sraboni

Survey date

yyyy-mm-dd

PART-I: SOCIO-DEMOGRAPHIC INFORMATION

1.1. Name of the respondent

1.2. Age
(In years)

1.3. Gender

- ◯ Male
- ◯ Female

1.4. Village/Area of residence

1.5. Upazila

- ◯ Mymensingh Sadar
- ◯ Bogura Sadar
- ◯ Rajshahi Sadar
- ◯ Jashore Sadar
- ◯ Mohammadpur
- ◯ None
- ◯ 2 No. Gate Railway Market
- ◯ Fishery Ghat
- ◯ Trishal
- ◯ Adamdighi
- ◯ Durgapur
- ◯ Manirampur
- ◯ Mohakhali
- ◯ Bahaddarhat
- ◯ Sher Shah bangla Bazar
- ◯ Muktagacha
- ◯ Kahaloo
- ◯ Paba
- ◯ Sharsha
- ◯ Karwan Bazar
- ◯ Kazir Dewri
- ◯ Chawk Bazar

1.6. District

- ◯ Mymensingh
- ◯ Bogura
- ◯ Rajshahi
- ◯ Jashore
- ◯ Dhaka
- ◯ Chattogram

1.7. Mobile number

_____

1.8. Education

- ◯ No education
- ◯ Can sign only
- ◯ Primary/Elementary
- ◯ S.S.C./Dakhil/Equivalent
- ◯ H.S.C./Alim/Equivalent
- ◯ Bachelor (Pass)
- ◯ Bachelor (Hons.)/Fazil/Equivalent
- ◯ Masters/Kamil/Equivalent
- ◯ Ph.D.
- ◯ Post-Doctorate
- ◯ Others

Please specify

_____

1.9. Main occupation

- ◯ Agriculture (Own/Sharecropper)
- ◯ Fish farming
- ◯ Fishermen
- ◯ Poultry rearing/Business
- ◯ Livestock rearing/Business
- ◯ Service (Govt./Private/N.G.O.)
- ◯ Housewife
- ◯ Student
- ◯ Entrepreneur
- ◯ Labor (Agricultural/Non-agricultural)
- ◯ Business
- ◯ Professional (Doctor/Engineer/Lawyer)
- ◯ Driver/Rickshaw puller/Van puller
- ◯ Handicrafts/Carpenter/Potter
- ◯ Others

Please specify others

_____

1.10. Sub-occupation

- ☐ Agriculture (Own/Sharecropper)
- ☐ Fish farming
- ☐ Fishermen
- ☐ Poultry rearing/Business
- ☐ Livestock rearing/Business
- ☐ Service (Govt./Private/N.G.O.)
- ☐ Housewife
- ☐ Student
- ☐ Entrepreneur
- ☐ Labor (Agricultural/Non-agricultural)
- ☐ Business
- ☐ Professional (Doctor/Engineer/Lawyer)
- ☐ Driver/Rickshaw puller/Van puller
- ☐ Handicrafts/Carpenter/Potter
- ☐ No sub-occupation
- ☐ Others

Please specify others

_____

1.11. Family size (No.)

_____

1.12. Earning member (No.)

_____

1.13. No. of children

(Below 14 years old)

_____

1.14. How many days a week do you fish in your diet?

- ◯ 0
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6
- ◯ 7

1.15. About how much money do you spend per month to purchase fish?

(Tk.)

_____

1.16. Average monthly expenditure for tilapia fish?

(Tk.)

_____

1.17. Average monthly expenditure for pangasius fish?

(Tk.)

_____

1.18. Average monthly expenditure for rohu fish?

(Tk.)

_____

1.19. What are the sources of information you usually use to get about food safety, food production and fish production & consumption process?

- [ ] Newspaper
- [ ] Television (TV)
- [ ] Radio
- [ ] Social media
- [ ] Youtube
- [ ] Government organization
- [ ] Non-profit organization
- [ ] International organization
- [ ] Dissemination or demonstration program at community level
- [ ] I have never come across such information from the sources mentioned
- [ ] Others

Please specify others

_____

1.20. In the future, from what source would you like to get food safety information?

- [ ] Newspaper
- [ ] Television (TV)
- [ ] Radio
- [ ] Social media
- [ ] Youtube
- [ ] Government organization
- [ ] Non-profit organization
- [ ] International organization
- [ ] Dissemination or demonstration program at community level
- [ ] Others

Please specify others

_____

1.21. Do you have any training on the importance of purchasing, preparing, and consuming safe food?

- ◯ Yes
- ◯ No

What was the training duration?
(Days/months/year)

_____

1.22. Do you have any contact with the local food safety authority or related organizations?

- ◯ Yes
- ◯ No
- ◯ Have no organization of such type

PART-II: KNOWLEDGE ON SAFE FISH CONSUMPTION

2.1. Consumption of safe food is more important than tasty food. Do you know that?

Not at all — Very little — Somewhat — A lot — To a great extent

2.2. Consuming unsafe food can cause health risk in future. Is it known to you?

Not at all | Very little | Somewhat | A lot | To a great extent

2.3. Do you know any health benefits of eating fish?

(1) High-quality protein, iodine, vitamin D and omega-3 fatty acid (crucial for brain and eye development), (2) Reduce the risk of heart attacks and strokes, (3) Improve brain health and reduce depression, (4) Reduce the risk of type 1 diabetes, (5) Children who eat more fish have a lower risk of asthma, (6) Lower risk of AMD (Age-related muscular degeneration), a leading cause of vision impairment and blindness, (7) Improve sleep quality

Not at all | Very little | Somewhat | A lot | To a great extent

Please, mention some of the benefits of eating fish.

_____

Please, mention some of the benefits of eating fish.

_____

Please, mention some of the benefits of eating fish.

_____

Please, mention some of the benefits of eating fish.

_____

2.4. Eating unsafe fish can lead to disease. Do you know?

Not at all | Very little | Somewhat | A lot | To a great extent

2.5. Is it known the preservatives, like formalin, used in fish can cause health problem?

Not at all | Very little | Somewhat | A lot | To a great extent

2.6. Are there any potential health risks associated with the use of antibiotics in fish farming?

Not at all | Very little | Somewhat | A lot | To a great extent

2.7. Do you know that the fish we buy from the market contains more than acceptable levels of various heavy metals?

Not at all | Very little | Somewhat | A lot | To a great extent

2.8. Do you know how cross-contamination occurs during fish processing and handling?

Based on the knowledge of the respondent, the enumerator will clarify the concept. Cross contamination occurs when different microorganisms are transferred from the food preparators hands or kitchen utensils to another foods and contaminate them.

Not at all | Very little | Somewhat | A lot | To a great extent

2.9. Is it known how pathogenic microorganisms could reach or enter your kitchen?

Based on the response, the enumerator will clarify that the pathogenic microorganisms could reach or enter kitchens through pets, insects, raw foods, shopping bags, dirty hands, etc.

Not at all | Very little | Somewhat | A lot | To a great extent

2.10. Can harmful bacteria that are not visible to the naked eye spoil the quality of cooked fish?

Not at all | Very little | Somewhat | A lot | To a great extent

2.11. Washing hands before or during cooking fish reduces the risk of cross-contamination and prevents food poisoning. How much do you know about it?

Not at all | Very little | Somewhat | A lot | To a great extent

2.12. Is it known that using an apron and gloves during cooking can reduce the threat of foodborne disease transmission?

The enumerator will explain about the apron and gloves if they need to.

Not at all | Very little | Somewhat | A lot | To a great extent

2.13. Do you know kitchen utensils (chopping board, knives, cooking pans, etc.) must be adequately cleaned before and after cooking?

Not at all | Very little | Somewhat | A lot | To a great extent

2.14. How much do you know about the healthiest way to cook fish?

The way you cook your fish can change its nutritional composition. [1] Grilling (heat from below) and broiling (heat from above) fish can produce some harmful compounds. To minimize them, cook fish for the shortest time possible, avoid burning the flesh, and add a marinade. [2] If you're frying, pan-fry (uses a much smaller amount of fat or oil) rather than deep-fry (submerging food in a large amount of fat or oil) your fish, and use a healthy oil like olive oil. Deep-frying fish is the least healthy cooking method. [3] Poaching (submerging fish in a liquid) and steaming (using hot, vaporized water) are low-temperature cooking methods that may preserve healthy omega-3 fatty acids better than other methods. [4] By baking (dry heat method that involves cooking fish in an oven) your fish, you'll likely lose less healthy omega-3 fats than if you fry or microwave (cook fish using waves of energy in an oven).

Not at all | Very little | Somewhat | A lot | To a great extent

2.15. Do you know the optimum temperature for storing raw and cooked fish?

Hint: The optimum storing temperature is 4 degree Celsius or below.

Not at all | Very little | Somewhat | A lot | To a great extent

2.16. Considering the health risks, do you know everyone should consume safe fish even if they cost a little more?

Not at all | Very little | Somewhat | A lot | To a great extent

PART-III: ATTITUDES TOWARD SAFE FISH CONSUMPTION

Please express your opinion for the following statements.

Statements	Strongly disagree	Disagree	Neutral/Undecided	Agree	Strongly agree
3.1. Consuming safe food is more important than tasty food.	○	○	○	○	○
3.2. Consuming unsafe food can cause health risk in future.	○	○	○	○	○
3.3. Eating unsafe fish can lead to disease.	○	○	○	○	○
3.4. Preservatives, like formalin, used in fish can cause health problem.	○	○	○	○	○
3.5. The use of antibiotics in fish farming has a potential health risk to humans.	○	○	○	○	○
3.6. Heavy metals in fish more than the recommended levels can cause various health problems in the future.	○	○	○	○	○
3.7. Unhygienic practices during fish production, selling, processing, cooking, and consumption are the source of cross-contamination.	○	○	○	○	○
3.8. Do you agree that you can minimize the risk of cross-contamination by following some hygiene practices?	○	○	○	○	○
3.9. Washing hands before or during cooking fish reduces the risk of cross-contamination and prevents food poisoning.	○	○	○	○	○
3.10. Using hand gloves during cooking fish is essential to reduce the risk of foodborne illness.	○	○	○	○	○
3.11. Do you agree that wearing an apron during cooking fish is important to reduce the risk of cross-contamination?	○	○	○	○	○
3.12. Frequent washing of kitchen utensils (chopping board, knives, cooking pans, etc.) is important.	○	○	○	○	○
3.13. Fish and raw vegetables should not be cut using the same knife without washing.	○	○	○	○	○
3.14. It is necessary to cook the raw fish thoroughly to maintain food quality.	○	○	○	○	○
3.15. Knowing the optimum temperature for storing raw and cooked fish is important.	○	○	○	○	○

3.16. It is crucial to avoid fish processing and cooking activities if you have any diseases (diarrhea, dysentery, cholera, etc.) or wounds.	◯	◯	◯	◯	◯
3.17. Checking the "best before" date while purchasing packaged or processed fish is essential to prevent foodborne diseases.	◯	◯	◯	◯	◯
3.18. Consumers will prefer fish more if produced in a safer environment. Do you agree?	◯	◯	◯	◯	◯
3.19. Do you agree that consumers should pay a premium for the safe fish if available?	◯	◯	◯	◯	◯
3.20. Are you willing to improve your food safety knowledge via training and workshop?	◯	◯	◯	◯	◯
3.21. You will change your fish processing and cooking practices when you know they were incorrect	◯	◯	◯	◯	◯

PART-IV: PRACTICES ON SAFE FISH CONSUMPTION

4.1. Who decides what fish to buy and from where?

- ◯ Husband
- ◯ Wife
- ◯ Both

4.2. What of the following responsibilities do you perform?

- ☐ Buying
- ☐ Cleaning
- ☐ Cooking
- ☐ Storing
- ☐ None of these
- ☐ Others

Please specify others

_____

4.3. How often do you perform these activities?

Never	Rarely	Sometimes	Very often	Always
◯	◯	◯	◯	◯

4.4. Where do you purchase fish from?

- ☐ Primary producer/Farmgate
- ☐ Local/wet market
- ☐ Wholesale market
- ☐ Supermarket

Why do you purchase from supermarket?

- [ ] Well packaged with expiry date if processed
- [ ] Frozen but fresh
- [ ] No mix-up of different fish species
- [ ] Use gloves during measurement
- [ ] Convenient place to buy
- [ ] Easy movement is possible
- [ ] Use different cart to display different fish
- [ ] Processed fish is stored at right temperature
- [ ] Others

Please specify others

_____

4.5. Which of the following scenarios of retail or wholesale market seems unhygienic to you?

- [ ] Mass gathering
- [ ] No use of protective cloths like gloves, mask & apron
- [ ] Kept the live, fresh or iced fish together or at very little distance
- [ ] No seperation of fish from the contact surface
- [ ] Use same cutting utensils without frequent cleaning or washing during whole selling process
- [ ] Noisy environment
- [ ] Difficult to easy movement
- [ ] Others

Please specify others

_____

4.6. How often do you purchase fish from sellers who follow better hygiene practices?

Never — Rarely — Sometimes — Very often — Always

4.7. What is the most crucial aspect when you buy fish?

- ◯ Food safety (in terms of internal attributes)
- ◯ External appearance
- ◯ Price
- ◯ Nutritional status
- ◯ Taste
- ◯ Others

Please specify others

_____

Questions	Never	Rarely	Sometimes	Very often	Always
4.8. Do you check the sensory condition of fish when purchasing?	◯	◯	◯	◯	◯
4.9. Do you clean/sanitize your hands before and after cooking fish to prevent foodborne illness?	◯	◯	◯	◯	◯

4.10. You wash your hands if you sneezed or coughed into your hands while cooking fish. Is it true?	○	○	○	○	○
4.11. Do you use hand gloves during cooking to reduce the risk of foodborne disease transmission?	○	○	○	○	○
4.12. Do you wear an apron during cooking to reduce the risk of cross-contamination?	○	○	○	○	○
4.13.Do you clean contact surfaces (knives, boards, kitchen counters) before and after cooking fish?	○	○	○	○	○

4.14. Do you use the same knife, cutting board, and utensils to cut raw fish, vegetables, meat, etc.?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.15. If there is any wound or injury on the hand or body, do you do any work related to cooking fish or food while it is open?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.16. Do you store raw and cooked fish separately?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.17. Store fish, meat, and chicken separately in the freezer is essential to maintain quality. Are you habituated to this practice?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.18. How often do you freeze previously defrosted raw or cooked fish?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.19. If the external characteristics suggest that the fish is not fresh or unsafe, do you buy that fish?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.20. Do you purchase packaged or processed fish?

○ Never ○ Rarely ○ Sometimes ○ Very often ○ Always

4.21. Do you check the date of minimum shelf life before packaged or processed fish purchase?

Never Rarely Sometimes Very often Always

4.21. Do you check the date of minimum shelf life before packaged or processed fish purchase?

Never Rarely Sometimes Very often Always

4.21. Do you check the date of minimum shelf life before packaged or processed fish purchase?

Never Rarely Sometimes Very often Always

4.21. Do you check the date of minimum shelf life before packaged or processed fish purchase?

Never Rarely Sometimes Very often Always

4.22. How often will you purchase fish if it is produced in a safe environment?

Never Rarely Sometimes Very often Always

4.23. What are the barriers do you think if you want to consume safe fish regularly?

- [ ] No certification or labelling
- [ ] If certification or labelling, no or little trust on the authorized entity
- [ ] Over pricing for the safety parameters
- [ ] Fake certification by untraceable entity
- [ ] City or urban centric availability
- [ ] Others

Please specify others

_____

At this phase of interview, do you feel free to share your average monthly income?

- ◯ Yes
- ◯ No

What is your average monthly income?

(Tk.)

- Tk. 0 - 10,000
- Tk. 10001 - 20,000
- Tk. 20,001 - 40,000
- Tk. 40,001 - 60,000
- Tk. 60,001 - 80,000
- Tk. 80,000 plus

QUESTIONNAIRE ON CHOICE EXPERIMENT

Choice Set

Version

1 2 3
4 5

Assume that a new food safety initiative is being implemented for farmed fish. This program will guarantee that the farmer will raise the fish following precise standards developed by scientists based on the best available scientific data. These farmed fish standards state that only acceptable levels of antibiotics may be used, the level of heavy metals and the presence of bacterial pathogens will be below the acceptable level, the water quality in which the fish are raised will be clean, and the fish will only be fed sustainable and authorized feed. Products from farms without certification won't come with that assurance. The standards may be certified and inspected by a Bangladesh government agency or an environmental group, or there may be no information regarding which organization authorized that the product meets the standards. You will be given three sets of ten questions below: the first set is for rohu, the second for tilapia, and the third for pangasius. Choose which product, if any, you would purchase for each option below by comparing them.

FARMED FISH CHOICE DECISION

» Rohu Fish

1. I would like to buy

A B Neither A nor B

2. I would like to buy

A B Neither A nor B

3. I would like to buy

A B Neither A nor B

4. I would like to buy

A B Neither A nor B

5. I would like to buy

A B Neither A nor B

6. I would like to buy

A B Neither A nor B

7. I would like to buy

A B Neither A nor B

8. I would like to buy

A B Neither A nor B

9. I would like to buy

A B Neither A nor B

10. I would like to buy

A B Neither A nor B

» Tilapia Fish

1. I would like to buy

A B Neither A nor B

2. I would like to buy

A B Neither A nor B

3. I would like to buy

A B Neither A nor B

4. I would like to buy

A B Neither A nor B

5. I would like to buy

A B Neither A nor B

6. I would like to buy

A B Neither A nor B

7. I would like to buy

A B Neither A nor B

8. I would like to buy

A B Neither A nor B

9. I would like to buy

A B Neither A nor B

10. I would like to buy

A B Neither A nor B

» Pangasius Fish

1. I would like to buy

A B Neither A nor B

2. I would like to buy

A B Neither A nor B

3. I would like to buy

A B Neither A nor B

4. I would like to buy

A B Neither A nor B

5. I would like to buy

A B Neither A nor B

6. I would like to buy

A B Neither A nor B

7. I would like to buy

A B Neither A nor B

8. I would like to buy

A B Neither A nor B

9. I would like to buy

A B Neither A nor B

10. I would like to buy

A B Neither A nor B

Capture the location of the housing unit.

latitude (x.y °)

longitude (x.y °)

altitude (m)

accuracy (m)

THANK YOU FOR YOUR PRECIOUS TIME AND COOPERATION