

Indoor Air Pollution

District Survey Questionnaire

Time started: _____

Interviewer: _____

Survey ID: _____

The purpose of this questionnaire is to investigate the use of fuel consumption by the household for cooking and its health and environmental effect. It is for research purpose only. Please answer the questions to the best of your knowledge. Answers will be kept completely confidential and only be presented in summary formats.

Sample Identification

Personal general information to be answered by the respondent

1. Name of the Interviewee: _____

2. Gender: 1. ¹ Male 0. ¹ Female

3. Age: Years _____

4. Gender of the head of the household (most important decision maker)

 1. ¹ Male 0. ¹ Female

5. Relationship to the head of the household: _____

6. Who makes the final decisions about the household budget? _____

Household Socio-Economic Characteristics:

7. Total number of people normally living in the house: _____

8. Ownership and assets (quantity and present market value), please provide all the information that you have

<i>"Enter 0 in case of not owning"</i>			
I.D.	Assets description	Assets amount	Present market value
		(For land, use decimal; for others, use numbers)	(Taka)
1	Cultivable land		
2	Homestead land (including structure)		
3	Commercial land		
4	Other land (including pond, orchard)		
5	Business/shop structure		
6	Rickshaw/helicopter*/van/push cart		
7	Bullock/buffalo/horse		
8	Sheep/goat		
9	Refrigerator		
10	Radio		
11	Cassette player/tape recorder		
12	Television		
13	Bicycle		
14	Motor cycle		
15	Baby taxi		
16	Bus/truck/car		
17	Country boat		
18	Motorized vessel/engine boat		
19	Land Phone		
20	Mobile Phone		
21	Tractor/power tiller		
22	Deep tube well		
23	Shallow tube well		
24	Poultry		
25	Rice/flour mill		
26	Sugarcane crusher		
27	Handloom		
28	Oil crusher / <i>ghani</i>		
29	Other, specify_____		

9. Cash family income (monthly)

Source	Income
Wage/ salary	
Crop sale	
Rental income	
Income for self employed/ Business income	
Remittance	
Others (please specify)	
Total	

9.1 What is the total monthly (cash) expenditure of the household?

Amount (Taka)	
---------------	--

10. Value of household or homegrown products (monthly)

Product consumed	Market Value
Rice consumed	
Vegetables consumed	
Fish	
Fruit	
Rental value of the house (when owned)	
Others (please specify)	
Total	

11. Total number of people living in the house

Person ID	1	2	3	4	5	6	7	8	9
Name of the person									
Relation to interviewee									
Gender (Male=1, Female=0)									
Age									
Can individual read or write (Can't read or write=0, Only read but not write=1, Read & Write=2)									
Highest education level (No schooling=0, Less than or equal to five year of schooling=1, Six to ten years of schooling=2, Eleven to twelve years of schooling=3, More than twelve years of schooling=4)									
Number of years residing in the house.									
Primary occupation (House wife=1, Service holder=2, Farmer=3, Day laborer=4, Self employed=5, Unemployed=6, Student=7, Disabled=8, Others please specify _____)									
Secondary occupation (use code mentioned for primary occupation)									
Any major disease in last two weeks? (Yes=1, No=0)									
Number of Work days lost									
Number of non-work days lost									
Number of restricted activity days									
Smoker									
No=0, Yes=1, Ex-smoker=2									
If yes or ex-smoker then what kind (Pipe or hukka=1, Cigarette without filter=2, Cigarette with filter=3)									
Number of stick or grams per day									
Time activity pattern									
Indoor									
Kitchen (in hours)									
In living area (in hours)									
Other room (in hours)									
Outdoor (in hours)									

11.

Person ID	10	11	12	13	14	15	16	17	18
Name of the person									
Relation to interviewee									
Gender (Male=1, Female=0)									
Age									
Can individual read or write (Can't read or write=0, Only read but not write=1, Read & Write=2)									
Highest education level (No schooling=0, Less than or equal to five year of schooling=1, Six to ten years of schooling=2, Eleven to twelve years of schooling=3, More than twelve years of schooling=4)									
Number of years residing in the house.									
Primary occupation (House wife=1, Service holder=2, Farmer=3, Day laborer=4, Self employed=5, Unemployed=6, Student=7, Disabled=8, Others please specify _____)									
Secondary occupation (use code mentioned for primary occupation)									
Any major disease in last two weeks? (Yes=1, No=0)									
Number of Work days lost									
Number of non-work days lost									
Number of restricted activity days									
Smoker									
No=0, Yes=1, Ex-smoker=2									
If yes or ex-smoker then what kind (Pipe or hukka=1, Cigarette without filter=2, Cigarette with filter=3)									
Number of stick or grams per day									
Time activity pattern									
Indoor									
Kitchen (in hours)									
In living area (in hours)									
Other room (in hours)									
Outdoor (in hours)									

Characteristics of house

12. No of stories in house

13. No of rooms in the house
(excluding toilet, kitchen and lawn)

14.a Roofing material

- | | | |
|-------------------|------------------------|-------------|
| 1. Tile | 2. Thatched | 3. Concrete |
| 4. Corrugate Iron | 5. Others specify_____ | |

15.a Wall construction material

- | | | |
|------------------------|-------------|-------------|
| 1. Brick wall | 2. Thatched | 3. Concrete |
| 4. Corrugate Iron | 5. Wood | 6. Mud |
| 7. Others specify_____ | | |

16.a Floor construction material

- | | | | |
|-------------|------------------------|---------|--------|
| 1. Concrete | 2. Brick | 3. Wood | 4. Mud |
| 5. Bamboo | 6. Others Specify_____ | | |

Characteristics of kitchen

14.b Roofing material

- | | | |
|-------------------|------------------------|-------------|
| 1. Tile | 2. Thatched | 3. Concrete |
| 4. Corrugate Iron | 5. Others specify_____ | |

15.b Wall construction material

- | | | |
|------------------------|-------------|-------------|
| 1. Brick wall | 2. Thatched | 3. Concrete |
| 4. Corrugate Iron | 5. Wood | 6. Mud |
| 7. Others specify_____ | | |

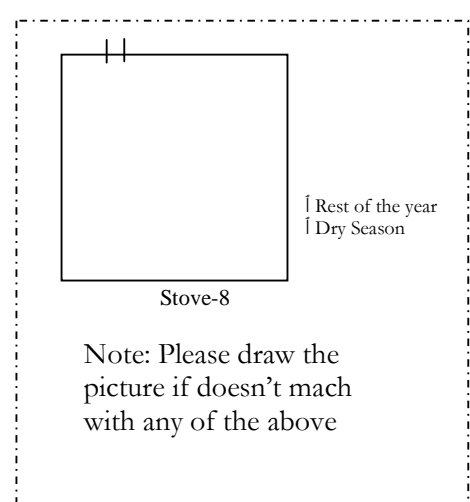
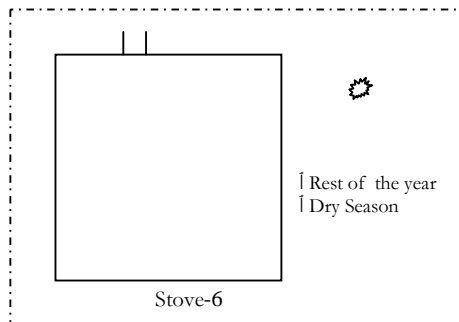
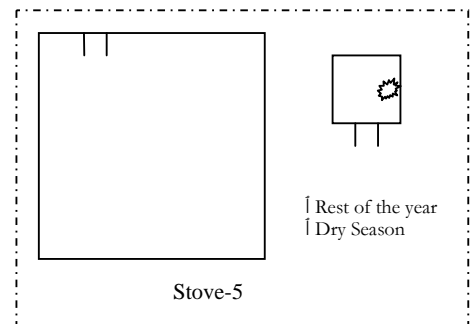
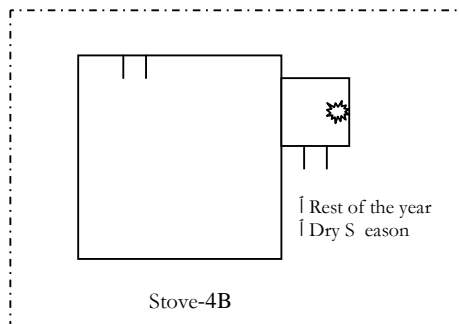
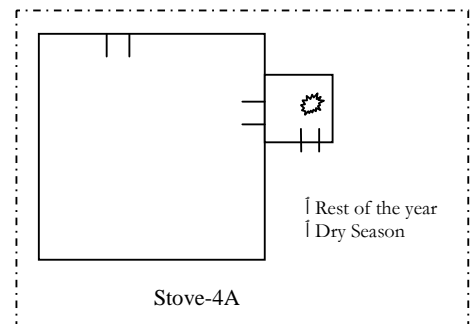
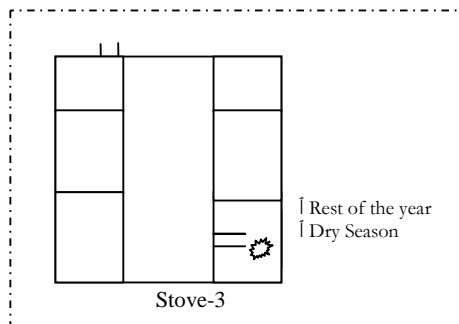
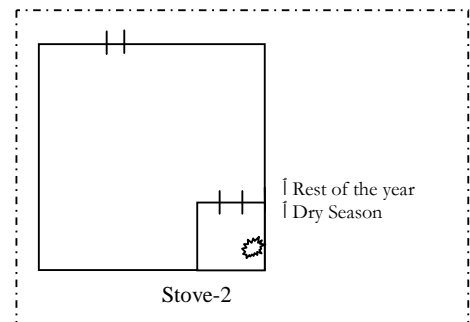
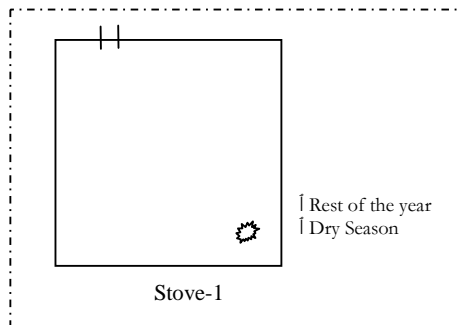
16.b Floor construction material

- | | | | |
|-------------|------------------------|---------|--------|
| 1. Concrete | 2. Brick | 3. Wood | 4. Mud |
| 5. Bamboo | 6. Others Specify_____ | | |

17. Toilet facility

- | | |
|-------------------------------|------------------------------|
| 1. Septic tank/ Modern toilet | 2. Water sealed/slab latrine |
| 3. Open pit latrine | 4. Hanging latrine |
| 5. Open space | 6. Others specify_____ |

18. Location of kitchen (tick mark the appropriate picture)



House ventilation related factors (need to determine best way to collect length/width or areas):

For kitchen:

19. No of walls in the kitchen
20. No of windows in the kitchen
21. No of doors in the kitchen
22. Location of windows/doors allows cross-ventilation? 1. Yes 0. No
23. Any screen doors/windows? 1. Yes 0. No
24. Vertical surface area of kitchen Length Width Height
25. Vertical surface area of openings (doors/windows/other) out of kitchen

ID	Doors		Windows		Others please specify_____	
	Height	Width	Height	Width	Height	Width
1						
2						
3						

26. Ventilation area between walls and roof in kitchen: 1. Yes 0. No
27. Number of walls with opening to the outside of the house:
28. Number of walls with opening to the inside of the house:
29. If there are two or more openings in the walls, are openings on opposite walls?
1. Yes 0. No

For living area:

30. Vertical surface area of living area: Length Widths Height
(Non-kitchen monitor site)
31. Vertical surface area of openings (doors/windows/other) out of living area

ID	Doors		Windows		Others please specify_____	
	Height	Width	Height	Width	Height	Width
1						
2						
3						

32. Ventilation area between walls and roof in living area: 1. Yes 0. No
33. Number of walls with opening to the outside of the house:

34. Number of walls with opening to the inside of the house:

35. If there are two or more openings in the walls, are openings on opposite walls?

1. Yes 0. No

Primary Stove:

36. Stove type:

1. Gas 2. Electric 3. Kerosene 4. Mud Traditional
5. Mud Improved 6. Others (specify) _____

37. Fuel type:

1. Firewood 2. Sawdust 3. Tree residue
4. Straw 5. Rice husk 6. Jute Sticks
7. Bagasse 8. Other crop residue 9. Briquette
10. Animal residue 11. Charcoal 12. Kerosene
13. Piped natural gas 14. LPG/LNG 15. Bio gas
16. Electricity 17. Others (specify) _____

38. Chimney: 1. Yes 0. No

39. Construction material:

1. Iron Sheet 2. Mud 3. Brick
4. Cement & Sand 5. Others (specify) _____

Secondary Stove:

40. Stove type:

1. Gas 2. Electric 3. Kerosene 4. Mud Traditional
5. Mud Improved 6. Others (specify) _____

41. Fuel type:

1. Firewood 2. Sawdust 3. Tree residue
4. Straw 5. Rice husk 6. Jute Sticks
7. Bagasse 8. Other crop residue 9. Briquette
10. Animal residue 11. Charcoal 12. Kerosene
13. Piped natural gas 14. LPG/LNG 15. Bio gas
16. Electricity 17. Others (specify) _____

42. Chimney: 1. Yes 0. No

43. Construction material:

1. Iron Sheet 2. Mud 3. Brick
4. Cement & Sand 5. Others (specify) _____

Tertiary Stove

44. Stove type:

1. Gas 2. Electric 3. Kerosene 4. Mud Traditional
5. Mud Improved 6. Others (specify) _____

45. Fuel type:

- | | | |
|-----------------------|----------------------------|-----------------|
| 1. Firewood | 2. Sawdust | 3. Tree residue |
| 4. Straw | 5. Rice husk | 6. Jute Sticks |
| 7. Bagasse | 8. Other crop residue | 9. Briquette |
| 10. Animal residue | 11. Charcoal | 12. Kerosene |
| 13. Piped natural gas | 14. LPG/LNG | 15. Bio gas |
| 16. Electricity | 17. Others (specify) _____ | |

46. Chimney: 1. Yes 0. No

47. Construction material:

- | | | |
|------------------|---------------------------|----------|
| 1. Iron Sheet | 2. Mud | 3. Brick |
| 4. Cement & Sand | 5. Others (specify) _____ | |

48. Is there any seasonal difference in stove choice pattern? 1. Yes 0. No

49. Please fill-in the following table:

Stove type	Period 1*	Period 2*	Period 3*
Primary (%)			
Secondary (%)			
Tertiary (%)			

*Write the names of the months, e.g., November-January, Poush-Phalgun, etc., in the box immediately below.

50. Why did you choose primary stove instead of secondary?

- | | | |
|--------------------------|-------------------------|--------------------------|
| 1. Economical | 2. Convenient | 3. Fuel easily available |
| 4. Good for health | 5. Aesthetically better | |
| 6. Other (specify) _____ | | |

51. Have you changed stove types in the past? 1. Yes 0. No

52. When did you change stove types? _____ Years ago.

53. Why did you change stoves?

- | | | |
|--------------------------|-------------------------|--------------------------|
| 1. Economical | 2. Convenient | 3. Fuel easily available |
| 4. Good for health | 5. Aesthetically better | |
| 6. Other (specify) _____ | | |

54. Have you used an improved stove?

1. Yes 0. No

54.1 If no, why?

- | | | |
|---------------------------|-----------------------------|------------------|
| 1. Inconvenient to use | 2. Fire hazards | 3. Not available |
| 4. Don't know it exists | 5. Large initial investment | |
| 6. Others (specify) _____ | | |

55. Have you stopped using an improved stove? 1. Yes 0. No

55.1 If yes, why?

1. Inconvenient to use 2. Fire hazards 3. Not cheaper
4. No reason 5. Others (specify) _____

Fuel Choice:

56. How many times a day does household typically cook?

57. How many meals does household have in a day?

58. If household cooks fewer times than number of meals, provide reason.

1. Lack of time 2. Fuel cost 3. Not needed
4. No reason 5. Others (specify) _____

59. Is there any seasonal variation between primary & secondary fuel use for cooking?

1. Yes 0. No

60. Please provide the following information (use necessary codes from below)

Period (e.g. November-January)	Primary fuel	Secondary fuel	Why did you choose primary fuel instead of secondary fuel? (maximum two reasons according to importance)	
			First	Second

Codes for fuel type:

1. Firewood 2. Sawdust 3. Tree residue
4. Straw 5. Rice husk 6. Jute Sticks
7. Bagasse 8. Other crop residue 9. Briquette
10. Animal residue 11. Charcoal 12. Kerosene
13. Piped natural gas 14. LPG/LNG 15. Bio gas
16. Electricity 17. Others (specify) _____

Codes for reason to choose primary fuel instead of secondary fuel:

1. Economical 2. Convenient 3. Fuel easily available
4. Good for health 5. Aesthetically better
6. Other (specify) _____

61. Do you use fuel to keep warm? 1. Yes 0. No

61.1 If yes, how many months do you use fuel to keep warm?

62. Are mosquitoes and bugs a problem indoors? 1. Yes 0. No

63. Does presence of mosquitoes and bugs affect your fuel choice?

1. Yes 0. No

64. Does presence of mosquitoes and bugs affect the amount of time you keep the stove going? 1. Yes 0. No

65. Do you use bio mass fuel smoke to stay mosquito/bug free?

1. Yes 0. No

66. How much do you spend on fuels (monthly)?

ID	Fuel Name	Total expenditure (in taka)	Market value when not purchased (in taka)	Unit of quantity (e.g. kg, stick, etc)	Price per unit (in taka)	Collection cost		
						Time (in hour)	Whose time?	Expenditure for collection (taka)
1	Fire wood							
2	Sawdust							
3	Tree residue							
4	Straw							
5	Rice husk							
6	Jute sticks							
7	Bagasse							
8	Other crop residue							
9	Briquette							
10	Animal residue							
11	Charcoal							
12	Kerosene							
13	Piped natural gas							
14	LPG/LNG							
15	Bio gas							
16	Electricity							
17	Others (specify)							

67. Clean fuels availability and use:

Fuel name	Are clean fuels available? (Yes=1, No=0)	If currently available		If becomes available	
		Do you use it? (Yes=1, No=0)	If don't use, why not? (Inconvenient to use=1, Fire hazards=2, Not cheaper=3, No reason=4, Large initial investment=5, Others (specify) _____)	Would you use it? (Yes=1, No=0)	Why not? (use code from column 4)
Pipe gas					
LPG/LNG					
Electricity					
Kerosene					

Cooking Exposure:

68. Provide information for each person who cooks?

ID of cook	Age at which started to cook?	How many days does the person cook in a month?	On a typical day, how often does the person cook?

69. On a typical day how many sessions of cooking is done? _____

Cooking session	How long is it? (in minutes)	Number of people being cooked for?	Who cooks?	Number of helpers? (excluding children)	How many children present?	How long is the fire on after cooking? (in minutes)
First						
Second						
Third						
Fourth						
Fifth						
Sixth						
Seventh						
Eight						
Ninth						
Tenth						

Health Outcomes: (All questions to cover all household members listed)

70. Is any member of household currently being treated for any medical problems?

1. ☐ Yes 0. ☐ No

70.1 If yes, please provide information in the following table:

Name ID	Currentl y visiting doctor (Yes=1, No=0)	Number of visit	How long ago the treatment started?		Problem treated (Wheezing=1,Tightness of chest=2, Shortness of breath=3 Rapid breathing=4, Eczema=5 Hay Fever=6, Skin Irritation=7, Eye Irritation=8, Headache=9, Dizziness=10, Other diseases please specify _____)	Current medication
			Months	Days		

71. Did any family members cough during the past two weeks? 1. ☐ Yes 0. ☐ No

If yes, please provide the following information:

Name ID	Was the cough accompanied with shortness of breath and rapid breathing? (Yes=1, No=0)	How frequently does this occur? (Not applicable =0, First time =1, sometime=2, Regularly=3)

72. Which of the following statement best describes breathing of the family members in the last six months?

Name ID	Code for breathing (Have no trouble breathing=0,Sometime trouble breathing=1,regularly have trouble breathing but it always gets completely better=2,Regularly have trouble breathing but it never gets completely better=3)

73. List household members that have died in the last five years?

Name	Age at death	Cause of death if known	Any respiratory problems (Yes=1, No=0)	Length of sickness prior to death	
				Months	Days

73.a Do you experience watery eyes due to smoke? 1. ☐ Yes 0. ☐ No

73.a.1 If yes, when does it happen? (tick all that applies)

1. ☐ When fire is started
2. ☐ Throughout the cooking session
3. ☐ When additional fuel added
4. ☐ Others (please specify) _____

73.b Does it last throughout the cooking session? 1. ☐ Yes 0. ☐ No

73.b.1 If no, how long (in minutes)? _____

73.c How bad is the problem? (tick all that applies)

1. ☐ Need to have a break from cooking
2. ☐ Need to close eyes
3. ☐ Need to splash water
4. ☐ Need to wipe eyes
5. ☐ Others please specify _____

INTERVIEWER DEBRIEFING QUESTIONS:
(TO BE FILLED OUT BY THE INTERVIEWER ONLY)

74. Do you think that it was easy for the respondent to answer the questions concerning his/her fuel use? 1. ☐ Yes 0. ☐ No

75. Are you certain that the interviewee was answering to the questions honestly and truly?

<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
Very uncertain	Moderately uncertain	Neutral	Moderately certain	Very certain

76. Time finished: _____

77. Interviewee name: _____

78. Interviewee Husband's/Father's name: _____

79. Household number: _____

80. Household known as: _____

81. Mahalla: _____

82. Village: _____

83. Union/ward: _____

84. Thana: _____

85. District: _____

86. Have you noticed or came to know anything irregular/abnormal about the household? 1. ☐ Yes 0. ☐ No

86.1 If yes, please provide a brief note:

87. Any other comment?

THIS PART FOR THE SUPERVISOR ONLY:

88. Name of the interviewer:

89. Date of the interview:

90. Name of the checker:

91. Date checked: