Survey Questionnaire:

This interview is made to you to undertake a research for the partial fulfilment of the award of MPhil degree in Environmental Economics. I would like to know about the environmental issues faced at the HH level in Kohat including the existing water supply situation, the sanitation and about the Solid waste management in the town. Your response will help policy makers to formulate an informed policy about improved water supply service. The interview will take a few minutes and the answers will be completely confidential and strictly for academic purpose. Thus, please answer the questions honestly and as truthfully as you can.

A. Household Details

1. Name of the respondent: .................................................................
2. Are you the head of the household? Yes/No
3. Name of the head of the household: ......................................................
4. Total members of the Household ..........; Male..........; Female......... Children (6-14)........
   Kids (1- 5 years).........; Infants (<1 year)........
5. Education of the HH head...........: Highest education among the members of the HH........
   0. Illiterate; 1. Primary; 2. Middle; 3. Matric; 4. FA/FSc; 5. BA/BSc/BCS; 6. MA/MSc; 7. Above
6. Total number of HH who are employed..............
7. Employment status of Head of Household Head
   1 Unemployed 2. Street Vendor/Small Informal Business
   3 Government Employee 4. Own Business
   5 Private Employee 6. Other
8. Average Monthly Household Income
   1. Less than RS. 10,000 2. RS. 10,001-20,000 3. RS. 20,001-50,000
   4. RS. 50,001-100,000 5. Greater than RS. 100,000
9. Do the members of the HH (>12 years) watch T.V.
   1. Every day 2. Once a week 3. Once a month 4. Almost never
10. Do you think that media has raised your awareness about water, sanitation and solid waste management?
    Yes 1  No 0  (If yes cont. to Q.11)
11. What type of mass media component was more effective in generating your awareness?
B. Household Waste Generation and Disposal

12. In your opinion which of these is a priority concern about waste in the area (tick only)?

1. Littering and looks bad
2. Effect on human health
3. Effect on environment
4. Others

13. What do you store your household rubbish in? For each storage method write down the number of each used in a week.

<table>
<thead>
<tr>
<th>No. /Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic bags</td>
</tr>
<tr>
<td>Cardboard boxes</td>
</tr>
<tr>
<td>Rubbish bin/ drum</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>No storage—direct disposal to dump</td>
</tr>
</tbody>
</table>

14. Where do you dispose your generated waste?

1. Nearby container
2. Open spaces
3. Near home
4. Others—Specify

15. Can you roughly identify percentage composition of your generated waste?

1. Kitchen waste %
2. Plastic %
3. Paper %
4. Solids %
5. Others %

16. Do you separate different type of waste at your home?

Yes 1 No 0 (if yes cont. to Q17)

17. Would you do so if you are told by your collection service provider?

Yes 1 No 0

18. Are there any large bins in your area?

Yes 1 No 0
C. Garbage Collection Services

19. Do you have regular garbage collection in your area?
   Yes 1  No 0 (if no cont. to Q26)

20. If yes, do you use it?
   Yes 1  No 0 yes/no (if no cont. to Q26)

21. How often do you use the collection service?
   1. Once a week
   2. Other—specify..................................................

22. Which collection service do you use?
   1. Public
   2. Private
   3. Other—specify..................................................

23. How much do they charge per month?
   Rs: ......................... per month

24. Are you satisfied with your current waste collection service?
   YES 1  NO 0

25. What is the main reason for your level of satisfaction/dissatisfaction?
   1. Costs
   2. Unreliability
   3. Improper collection
   4. Reliable
   5. Cooperative
   6. Others .................................

26. Do you separate different type of waste at your home?
   Yes 1  No 0 (if no cont. to Q.28)

27. Would you do so if you are told by your collection service provider?
   Yes 1  No 0
28. Do people dump their waste alongside the garbage bins instead of putting it inside those?
   Yes 1  No 0 (if no cont. to Q.30)

29. If Yes, Why, in your opinion, people behave like this?
   1. Difficult to put waste inside the bin due to height of the bin
   2. Difficult to put waste inside the bin due to waste and litter spread around the bin
   3. Stray animals (dogs, mouse and birds etc.)
   4. Any other reason ..........................

30. Please identify some of the main problems with the current solid waste management system?
   Waste lying around 1  Odor 2
   Rats 3  Flies 4
   No problem 5  others – Specify: ........6

31. What is the distance between your house and dumping site?
   1. ..................... Meters

D. Waste-related waterborne and vector infectious diseases

32. Has anyone in your household suffered from any of these listed diseases during the last six weeks?
   Yes 1  Yes/No
   No 0

33. What are the main causes of environmental degradation in Kohat?
   ……………………………………………………………………………………………………………………………..
34. What are you more concerned about?

1. Air pollution, 2. Water pollution, 3. Waste pollution
4. Damage to scenic beauty, 5. Noise pollution, 6. Others (Please specify)

E. Water Source and Supply

35. What is the source of your drinking water?

(Spring =1, Streams=2, Ponds = 3, Wells=4, Lakes=5, Rivers=6, Government water tank=7, Private water supply=8, self-Pump/Motor (tank) =9)

36. Do you buy bottled water? Yes/No (if No cont. to Q38)

Yes 1 No 0

37. What is the total cost of bottled water for your household, per month?

Rs: ....................../ month

38. If not drinking piped municipal corporation water, why?

1. Smell and taste of treated water 2. Not available in area
3. Fear of health effect 4. Others .....................

39. What do you use piped (ground) water for? Please circle indicated responses.

5. General cleaning and household purposes 6. Others .........................

40. If you use piped water, what is your average water bill each month?

Rs: ....................../ Month

41. In a day, what is the total number of hours of water supply?

No: of hours _________
42. What is your level of satisfaction with piped water supply (all aspects of it)?

1. Not satisfied  
2. Dissatisfied  (if Highly satisfied go to Q44)  
3. Satisfied  
4. Highly satisfied

43. If you are not satisfied with the current water supply what is the main reason?

1. Because it makes you sick  
2. Costs too high  
3. Taste and smell  
4. Limited access hours  
5. Others—Specify...........................

44. Is drainage system available in your area? (Yes=1, No=2)  (if No cont. to Q46)

45. What kind of drainage system is it?

(Kachai nali=1, Pakki nali=2, Open=3, underground=4, Covered with steel grill=5, Other=6)

46. Are the water Supply lines passing through the drainage? (Yes=1, No=0)

47. Who maintain drainage system?

(Municipal Committee=1, Self-maintained=2, Community=3, Any other=4)

48. What is the state of drainage system within your house?

1. Kachai nali  
2. Pakki nali=  
2. Under ground  
4. Any other. specify: __________

49. Is toilet available at your home? (Yes=1, No=0)  (if No cont. to Q51)

50. Whether flush system is available in the toilet? (Yes=1, No=0)

F. Health

51. What is the current health awareness status in the locality?

(Very good=1, Good=2, Average=3, Minimum=4, Nil=5)

52. Do you use any purification method (such as boiling) before you drink piped water?

YES 1  NO 0  (if No cont. to Q54)
53. Which purification method do you use? __________________________________________

54. If “No”, what is the reason?
1. The water is clean
2. The water is not clean but it is expensive and time consuming
3. do not know whether there is purification method or not
   Though the water is not good it is harmless
4. Other: ____________

55. Have any children in your household below the age of 12 had any of these conditions in the last six months?
1. Diarrhea
2. Malaria
3. Typhoid
4. Cholera (Haiza) 5. Feces with Blood/Mucus
6. Hepatitis A
7. Other: ________

56. What is the average medical expense of your household? ______________

G. Environmental Awareness

57. This year, did you or any member of the family participate in any community cleanup activities or other voluntary cleanups?
   1. Yes 0. No

58. In your opinion is waste management an environmental problem?
   1. Yes 0. No

59. Do you know how your service provider disposes your collected waste?
   1. Yes 0. No

60. Are you concerned about the disposal methods of the service provider?
   1. Yes 0. No

61. Do you consider that environmental degradation has negative effect on your family?
   1. Yes 0. No

62. Do you think that leaving a better environment to future generations is something?
   0. Very important 1. Not important at all
H. Willingness to pay for Safe Drinking Water

Your household currently pays Rs. ____ per month in water tariffs. However, there are certain level of dissatisfaction regarding water availability times and water pressure etc. If you were to receive supply with sufficient pressure, and the water will be of good quality, potable without boiling or any other treatment 24 hrs a day, would you be willing to pay Rs. 200 per month? Note that this amount would be in addition to your current monthly household expenditures, but if you are paying money to purchase water from a source other than Municipal Corporation of Kohat, that amount would be deducted from your current monthly household expenditures. This would also include electricity cost to run motors, gas costs to boil water etc.

YES  NO

If YES,

Will you be willing to pay Rs. 400?

YES  NO

If NO

Why Not?

1. You are satisfied with existing service  
2. you cannot afford

5. You don’t want to pay  
4. others: ______________

Follow up Question: What is your Maximum/Minimum WTP, Rs: ________?
I. Willingness to pay for better sanitation and Solid waste management

Your household currently pays Rs. ____ per month as tariff for sanitation and solid waste management. However, there is certain level of dissatisfaction regarding the service provision. If you were to receive a proper sanitation within the street (paki nali) along with its proper cleaning plus you are provided with door to door collection of solid waste (five days a week), weekly street/mohalla cleaning, weekly cleaning of intermediate waste bins and safe disposal of waste generated, would you be willing to pay Rs. 200 per month for such services? Note that this amount would be in addition to your current monthly household expenditures, but you have than nothing extra to pay in this regards.

YES

NO

If YES,

Will you be willing to pay Rs. 400?

YES

NO

If NO

Why Not?

1. You are satisfied with existing service

2. You cannot afford

3. You don’t want to pay

4. Others: ______________

Follow up Question: What is your Maximum/Minimum WTP, Rs: __________?

Thanks for Your Time