

APPENDICES

APPENDIX I

1.0 Energy Management Practices Scale Used in Pilot Study

The following questions aim at finding out energy management practices mainly related to cooking, fuel, transport, and lighting followed by you and your family.

Key for response categories :

A = Always
S = sometimes
N = Never

Energy Management PracticesCooking Management Practices

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|---|---|---|---|
| 1. All the items required for cooking should be kept ready before lighting the stove/chulha. | A | S | N |
| 2. Cooking should be an unplanned activity. | A | S | N |
| 3. There is no harm in procuring ingredients while cooking is in progress, even though the cook's time and the chulha fire would be wasted. | A | S | N |
| 4. Some thing or the other should be kept on the chulha in between cooking to use heat in burning fuel. | A | S | N |
| 5. While cooking rice, dal etc. the flame should be reduced once the food boils. | A | S | N |
| 6. Good fire should be kept through out cooking. | A | S | N |
| 7. Cooking pan should be left open throughout. | A | S | N |
| 8. Continuous stirring should be practiced while cooking to avoid burning. | A | S | N |
| 9. Cooking pan should be kept partially closed, stirring the contents less frequently. | A | S | N |
| 10. Lots of water should be added to the food that is to be cooked. | A | S | N |
| 11. If more water (cooking medium) is needed to complete cooking then cold water could be added. | A | S | N |

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|--|---|---|---|
| 12. To cook in less water and have warm water readily available water should be kept on the lid of the cooking pan. | A | S | N |
| 13. Traditional pressure cooking should be followed to cook rice and dal together. | A | S | N |
| 14. Some of the items should be cooked for two meals at a time. | A | S | N |
| 15. Reheating should be done as and when needed. | A | S | N |
| 16. Selected food items (pulses and dal) should be soaked before cooking. | A | S | N |
| 17. Once the chulha is lit, some body or the other should attend to cooking/once the chulha is lit, it should be used immediately. | A | S | N |
| 18. Food burning should be avoided in the kitchen. | A | S | N |
| 19. Tight fitting lids should be used for cooking pans. | A | S | N |
| 20. The chulha should be put off some time prior to removing pans to use the heat of the stove. | A | S | N |

Fuel Management Practices:

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| 21. Dry fuel should be used for cooking. | A | S | N |
| 22. Large logs should be used for cooking without chopping. | A | S | N |
| 23. Fuel mixes rather than dry twigs alone should be used for cooking. | A | S | N |
| 24. Small thin pieces of firewood should be used. | A | S | N |
| 25. The chulha should be fed with large amounts of thin pieces of wood. | A | S | N |
| 26. During rainy season green/wet fuel should be dried well for cooking. | A | S | N |
| 27. It would not matter if fuel burns outside the chulha. | A | S | N |
| 28. The stored heat in stove body should be used once cooking is over. | A | S | N |
| 29. After cooking the fire should be put out completely. | A | S | N |
| 30. Cooking should be done inside the kitchen. | A | S | N |

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|---|---|---|---|
| 31. Cooking should be done outside the kitchen. | A | S | N |
| 32. Household/cook should be careful in using fuel whether gathered or purchased. | A | S | N |
| 33. Heat in left over burning charcoal and the stove body after cooking should be used to keep things warm or dry things. | A | S | N |
| 34. Left over charcoal should be reused for cooking operations. | A | S | N |

Transport and Lighting Management Practices:

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| 35. Work should be done as far as possible using day light. | A | S | N |
| 36. House should have windows to permit light inside house. | A | S | N |
| 37. Lamp should be put out after use. | A | S | N |
| 38. Lamp should be allowed to burn idle. | A | S | N |
| 39. One should walk down distances if there is no urgency. | A | S | N |
| 40. One should plan visits to minimise use of energy. | A | S | N |
| 41. One should use public transport like bus rather than three or two wheeler automobiles. | A | S | N |
| 42. One should use three/two wheeler automobiles rather than bus. | A | S | N |
| 43. One should complete as many tasks as possible in one thing. | A | S | N |
| 44. One should advocate use of automobiles like luna, moped, motorcycle to walking. | A | S | N |

1.1 Reliability of Items on EMPS

Item No. 'r' value on 44 item scale

1	.00	23	.03
2	.35*	24	.68 *
3	.04	25	.49 *
4	.20 *	26	.04
5	.00	27	.20 *
6	-.03	28	.24 *

7	.40 *	29	.06
8	.62 *	30	.58 *
9	.52 *	31	.62 *
10	.38 *	32	.04
11	.57 *	33	.00
12	.40 *	34	.01
13	.16	35	.04
14	.34 *	36	.30 *
15	.55 *	37	.39 *
16	.12	38	.39 *
17	.38 *	39	.16
18	.00	40	.59 *
19	-.67	41	.00
20	.03	42	.00
21	.00	43	.14
22	.66 *	44	.56 *

* Items included in the final scale

1.2 Following are the number of items that made up each area/component of EMPS

A. Area / component of EMPS	Item No.s
a. Cooking management practices	1 - 20
b. Fuel management practices	21 - 34
c. Lighting/Transport management practices	35 - 44

2.0 Cost Benefit Perception Scale Used in Pilot Study

The following statements are related to the perception of cost-benefit ratio in adopting MC. There is no right and wrong answer. Indicate your agreement or disagreement in relation to each statement.

key for response categories :

A = Agree
U = Uncertain
DA = Disagree

Cost-Benefit Perception Scale

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|---|---|---|----|
| 1. The beneficiary contribution of Rs.15 is just nominal. | A | U | DA |
| 2. The space occupied by MC could be put for better use. | A | U | DA |
| 3. MC leads to saving in fuel bill. | A | U | DA |

4. MC is better than TRC though it gives less light and warmth.	A	U	DA
5. Use of MC has resulted in less cooking time.	A	U	DA
6. More labour is required in installing MC.	A	U	DA
7. MC is letting us spend more time with family.	A	U	DA
8. The effort in maintenance and repair of MC not worth when compared to its benefits.	A	U	DA
9. It keeps environment clean.	A	U	DA
10. Efforts to learn special skill to cook on MC is not worth the benefits from MC.	A	U	DA
11. Use of MC has resulted in more leisure time.	A	U	DA
12. The cost of materials for MC is exorbitant in comparison to the gain in using MC.	A	U	DA
13. MC would remain hot for longer period after putting out fire, as compared to TRC.	A	U	DA
14. Checking the state and condition of fire in an MC is difficult when compared to TRC.	A	U	DA
15. Cooking on MC is less tiring.	A	U	DA
16. It is not worth while to cut tin sheet while fitting chimney through the roof as compared to its benefits.	A	U	DA
17. MC has resulted in relief from drudgery in fuel procurement.	A	U	DA
18. Traditional chulha is better than MC as it requires no expense, no skill and not much space.	A	U	DA
19. MC reduce physical discomforts from smoke, soot at cooking and cleaning vessels.	A	U	DA
20. MC is not advisable as its benefits are not convincing.	A	U	DA
21. MC has given relief from eye irritation, watery eyes, cough etc.	A	U	DA
22. More attention is required while cooking on MC.	A	U	DA

- | | | | |
|--|---|---|----|
| 23. There are less chances of accidents in using MC. | A | U | DA |
| 24. MC is yet another means to get votes and not worthy of considering for use. | A | U | DA |
| 25. It keeps walls clean. | A | U | DA |
| 26. It is necessary to maintain the MC without altering its dimensions to save fuel in cooking. | A | U | DA |
| 27. The constant attention required to cook on MC by switching first pot and second pot is worth while as the user benefits from fuel saving, saving in time for fuel gathering etc. | A | U | DA |
| 28. The light and warmth from fire would be less in an MC as compared to TRC. | A | U | DA |
| 29. MC is a programme for people to make money in the name of environment biomass conservation which does not benefit the poor household in any manner. | A | U | DA |

2.1 Reliability of items on CBPS scale

Item No.	r' value on 29 item scale	
1.	.87 *	16. .72 *
2.	.26 *	17. .71 *
3.	.31 *	18. .27 *
4.	.25 *	19. .46 *
5.	.72 *	20. .37 *
6.	.40 *	21. .28 *
7.	.23 *	22. .15
8.	.71 *	23. .43 *
9.	.67 *	24. .66 *
10.	.85 *	25. .43 *
11.	.84 *	26. .00
12.	.72 *	27. .29 *
13.	.00	28. -0.6
14.	.16	29. .31 *
15.	.49 *	

* Items included in the final scale