Energy Access Survey

Introduction to the Household Head

[Interviewer shows ID card to the respondent]

I work with MORSEL, an organization based in Lucknow that conducts surveys in India. Your household has been selected to participate in a short survey. The survey is a Council on Energy, Environment and Water / Columbia University study and is led by Dr. Johannes Urpelainen. It will take around 45 minutes. Would you like to participate?

1. Did the household head agree to be interviewed? 1 Yes 0 No
2. If no, record the reason: _____

A. MetaData

3. Household ID _____
4. ID and Name of Interviewer ID ___ NAME _____
5. ID and Name of Supervisor ID ___ NAME _____
6. Date of Interview _____
7. Interview start time _____ Interview end time _____

Geographic Information

8. State _____
9. District _____
10. Block _____
11. Village _____
12. Habitation _____
    [ASK VILLAGE HEAD IF NEEDED]
13. Full Address _____
14. Mobile Contact Number _____
15. GPS Latitude _____
16. GPS Longitude _____

B. Household Head and Roster

Obtain the following information from the household head. If the household head is NOT available, interview another adult member of the household.

17. Relationship to household head — 1 Self; 2 Spouse; 3 Mother/father; 4 Son/Daughter; 5 Other, specify _____
18. Name _____
19. Age _____ [YEARS]
20. Gender — 1 Male; 0 Female
21. Native language _____
22. Read and write native language? — 1 Yes; 0 No
23. Level of education of the household head
    1 No formal schooling; 2 Up to 5th standard; 3 Up to 10th standard; 4 12th standard or diploma; 5 Graduate and above
24. Religion — 1 Hindu; 2 Muslim; 3 Other
25. Government Caste — 1 Scheduled Caste; 2 Scheduled Tribe; 3 Other Backward Class; 4 General; 5 Others; 6 No Caste
26. Which ration card does your household have?
    0 None; 1 APL; 2 BPL; 3 Antyodaya
27. Number of adults living in this household permanently (as of now)_____ [NUMBER]
28. How many members in the family have a voter ID card? _____ [NUMBER]
29. Number of children (0-18 years) permanently living in the household (as of now) _____ [NUMBER]
30. How many children are currently studying? _____ [NUMBER]

C. Economic Activity

31. What is the primary source of income in your family?

    1 Agriculture on own land 2 Cultivation on leased land 3 Casual agricultural labor
    4 Salaried job 5 Cattle rearing 6 Own business
    7 Daily laborer 8 Other _____ [SPECIFY]

32. How much is your expenditure on household needs in a typical month?_____ [RUPEES]

33. How many rupees did your household save last year?_____ [RUPEES]

    33.1. If your household did not save money, how much do you need to borrow in a typical year? _____ [RUPEES]

34. Does anyone in your household have a bank account? 1 Yes 0 No

35. Is your household currently indebted? 1 Yes 0 No

    35.1 **IF YES**: How much in total? _____ RUPEES

    35.2 **IF YES**: What is the monthly interest rate of your largest loan? _____ PERCENT

36. How much land does your household own? _____ [0 if none]
    _____ [UNIT]

37. How many cattle and livestock do you own?

    ___ COWS ___ BUFFALOES ___ FOWLS/CHICKEN
    ___ COW CALVES ___ BUFFLOES CALVES
    ___ GOATS ___ OTHER ANIMALS

38. Who in your household makes decisions on purchase of durable goods?

    1 Male head of household 2 Female head of household 3 Jointly 4 Other, specify: _____

39. Is the house you live in *pucca*? 1 Pucca 2 Mixed 3 Kaccha

40. Do you own your house? 1 Yes 0 No

41. Does your household have a toilet? 1 Yes 0 No

42. Does your household have piped water? 1 Yes 0 No

43. How many rooms does your house have? ____ [NUMBER]

44. How many beds does your household own? ____ [NUMBER]

45. How many tables does your household own? ____ [NUMBER]

46. How many chairs does your household own? ____ [NUMBER]

47. How many bicycles does your household own? ____ [NUMBER]

48. How many motorcycles does your household own? ____ [NUMBER]

49. How many pressure cookers does your household own? ____ [NUMBER]

(Only for those HHs who are indulge in agriculture)**

50. Do you use pumps for irrigation? 1 Yes 0 No (skip to 50.2)

IF YES:

50.1. What type of pump?

1 Diesel pump 2 Electric pump 3 Both diesel and electric

IF NO:

50.2. Would you like to use an electric pump? 1 Yes 0 No

51. How satisfied are you with the current situation of electricity for your agriculture business?

1 Unsatisfied 2 Neutral 3 Satisfied

(for all Households)**

52. Do you or any other member of your family running a business activity (other than agriculture)?

1 Yes 0 No **(Skip to53)**

IF YES

52.1. Do you use electricity for your business? 1 Yes 2. No **(skip to 52.1.2)**

IF YES

52.1.1. How satisfied are you with the current situation of electricity for your business?

1 Unsatisfied 2 Neutral 3 Satisfied

IF NO

52.1.2. Can or has electricity contributed to increasing your income from your primary occupation?

1 Yes 0 No

(only to households who indulge in agriculture and no other business activity)**

53. Would you be interested in running a business activity (other than agriculture) in future?

1 Yes 0 No **(Skip to55)**

54. How important would be electricity for your future business activity?

1. Very important 2. Somewhat important 3. Not important

1. Lighting and Electricity Situation

55. Do you use grid electricity for lighting? 1 Yes 0 No **(Skip to 56)**

***IF YES*:**

55.1. How many years ago was your house connected to the grid?

____ [YEAR AGO] [*NA* if house already had electricity when the respondent moved in; DK if the respondent doesn't remember or doesn't know]

55.2. What was the connection fee?

_____ [RUPEES] [*NA* if house already had electricity when the respondent moved in; DK if the respondent doesn't remember or doesn't know]

55.3. What is your total electricity spending per month? ____ [RUPEES/MONTH]

55.4. Do you have a meter? 1 Yes 0 No

55.5. Do you pay a fixed or variable amount monthly?

0 Variable 1 Fixed 2 No Payment

56. Have you heard about micro-grids? 1 Yes 0 No

[*** ENUMERATOR: READ THE TEXT BELOW REGARDLESS OF ANSWER, SHOW PICTURE***]

Micro-grids are systems that generate electricity and distribute it at the local level. Electricity can be produced from solar energy, micro-hydro, diesel or some other source. The electricity can then be used by local users. It provides limited but reliable electricity supply compared to the grid electricity in rural India.

57. If the monthly bill for both options were the same, would you prefer your household to be electrified through a micro-grid system or through the regular grid?

0 Regular grid 1 Micro-grid DK Don't know

58. Do you use micro-grid for lighting? 1 Yes 0 No **(Skip to 59)**

***IF YES*:**

58.1. Is it powered through:

1 Solar 2 Diesel
3 Biomass gasification 4 Micro-hydro

58.2. What is your total spending for micro-grid electricity per month?
_____ [RUPEES/MONTH]

58.3. Do you have a meter? 1 Yes 0 No

58.4. Do you pay a fixed or variable amount monthly?

1 Fixed 0 Variable 2 No Payment

58.5. How much did you have to pay upfront for the micro grid connection?

____ [RUPEES] [*NA* if house already had electricity when the respondent moved in; DK if the respondent doesn't remember or doesn't know]

59. Have you heard about solar home systems? 1 Yes 0 No

[*** ENUMERATOR: READ THE TEXT BELOW REGARDLESS OF ANSWER, SHOW PICTURE***]

Sunlight can be used to produce electricity through solar home systems and will provide electricity only for your household. The energy from sunlight is captured by solar panels, which are typically installed on a house's rooftop, and is then transformed into electricity. This electricity can be stored in batteries and then be used whenever you want. The system life is 3-5 years and recurring costs are approximately zero. The company provides a maintenance guarantee.

IF YES:

60 Do you use solar home system or solar lanterns for lighting?

1 Solar home system 2 Solar lantern 3 both 4 Neither **(Skip to 61)**

***IF 1, 2, or 3*:**

60.1. How many hours of lighting per day do you get from it? _____ [HOURS/DAY]

60.2. Is it rented or owned? 0 Rented 1 Owned

IF RENTED:

60.3. How many rupees does it cost you per month? _____ [RUPEES/MONTH]

IF OWNED:

60.4. How many rupees did it cost you? _____ [RUPEES]

60.5. How much subsidy did you receive? _____ [RUPEES]

60.6. What is the loan did you take? _____ [RUPEES]

60.7. What is the term of the loan? _____ [MONTHS]

60.8. What is the per month installment? _____ [Rupees/month]

61 Do you use kerosene lamps for lighting? 1 Yes 0 No **(Skip to 62)**

***IF YES*:**

61.1. How many kerosene wick lamps do you use? _____ [LAMPS]

61.2. How many kerosene lanterns do you use? _____ [LANTERNS]

61.3 How many hours a day do you use kerosene lamps for lighting?

_____ [HOURS/DAY] (**cumulative sum**)

61.4. How many liters of kerosene do you buy from PDS per month? _____ [LITERS/MONTH]

61.5. What is the price you pay for PDS kerosene? _____ [RUPEES/LITER]
[DO NOT USE ZERO HERE – CODE "DK" IF DON'T KNOW]

61.6. How many liters of kerosene do you buy from the market per month? _____
[LITERS/MOMTH]

61.7. What is the price you pay for market kerosene? _____ [RUPEES/LITER]
[DO NOT USE ZERO HERE – CODE "DK" IF DON'T KNOW]

61.8. In your opinion, do kerosene fumes have an effect on your health? 1 Yes 0 No 2 DK

61.9. Do you use kerosene for anything other than lighting? 1 Yes 0 No
(IF NO, Skip to 62)

***IF YES*:**

61.10. What for? SPECIFY [ONLY NON-LIGHTING USAGE]
_____

61.11. How many liters/month do you use for this? [LET RESPONDENT ANSWER; DON'T MAKE SUGGESTIONS] _____ [LITERS/MONTH]

[ALL HOUSEHOLDS]

62 Do you use any other source for daily lighting needs regularly?

1 Diesel generator 2 Rechargeable lamps 3 Others [SPECIFY]:_____ 4. No other source

63. What do you use artificial lighting for?

64.1 Home business 1 Yes 0 No

64.2 Meeting with friends and family 1 Yes 0 No

63.3 Other: _____

64. For how many hours artificial lighting is used for reading (reading books, newspapers, studying, etc.) on an average per day? [Insert values in hours not hours/minutes]

_____ Children [0-24 HOURS PER CHILD]

_____ Adults [0-24 HOURS PER ADULT]

65. How many hours per day do you listen to the radio? _____ [0-24 HOURS]

66. How many hours per day do you watch television? _____ [0-24 HOURS]

67. Do you own a mobile phone? 1 Yes 0 No **(Skip to 68)**

IF YES:

67.1 How many mobile phones does your household have? _____ [NUMBER]

67.2 How much per month do you pay for charging the phone battery?
_____ [RUPEES]

68. *[*** ENUMERATOR: FILL IN WITHOUT ASKING RESPONDENT ***]*

*[*** Does the household have any electricity (whether from the grid, from a solar household system, from a diesel generator, or from a micro grid) ***]*

1 Yes 0 No

(IF "YES", GO TO 69 (Electrified Households); IF "NO", GO TO 79 (Non-Grid Households)

***** Electrified Households**

[HOUSEHOLDS THAT HAVE GRID, SOLAR HOUSEHOLD SYSTEM, DIESEL GENERATOR, OR MICRO GRID]

69. How many hours a day is electricity usually available? _____ [HOURS/DAY]

70. For how many hours is electricity usually available between sunset and midnight (till 12 o' clock)? _____ [0 – 6 HOURS]

71. How many days in the last month has there been no power throughout the day? ____ [0-30 DAYS]

72. How many days in a month have you experienced that electric equipment suffered because of voltage fluctuation? _____ [0-30 DAYS]

73. How many days a month have you experienced that voltage was too low to run appliances? _____ [0-30 DAYS]

74. Whom do you currently pay for your primary source of electricity?

0 Representative of electricity department 1 Village energy committee / Village head

2 Neighbor or relative 3 No one / no need to pay

4 Don't know where to pay 5 Others (SPECIFY) _____

75. How many of the following items/ appliances do you USE?

75.1. Incandescent bulbs? ____ [NUMBER]

75.2. CFL bulbs ____ [NUMBER]

75.3. LED lights? ____ [NUMBER]

75.4. Tube light? ____ [NUMBER]

75.5. Fans? ____ [NUMBER]

75.6. Electric iron? ____ [NUMBER]

75.7. Refrigerator? ____ [NUMBER]

75.8. Television? ____ [NUMBER]

75.9. Electric Radio/Music System? ____ [NUMBER]

75.10. Cooler? ____ [NUMBER]

75.11. Washing machine? ____ [NUMBER]

75.12. Electric stove? ____ [NUMBER]

75.13. Inverter? ____ [NUMBER]

75.14. Electric Water Pump ____ [NUMBER]

75.15. Others? _____ ____ [NUMBER]

75.16. Others? _____ ____ [NUMBER]

76. Which of the following appliances would you want to use, but are unable to use **only** because of the limited supply or poor quality of electricity?

(If there is good electricity available, code NA and move to 77**)**

76.1. Fans?	1 Yes	0 No	2 Already Using
76.2. Electric iron?	1 Yes	0 No	2 Already Using
76.3. Refrigerator?	1 Yes	0 No	2 Already Using
76.4. Television?	1 Yes	0 No	2 Already Using
76.5. Electric Radio/Music System?	1 Yes	0 No	2 Already Using
76.6. Cooler?	1 Yes	0 No	2 Already Using
76.7. AC?	1 Yes	0 No	2 Already Using
76.8. Electric stove?	1 Yes	0 No	2 Already Using
76.9. Computer/Laptop	1 Yes	0 No	2 Already Using
76.10. Washing machine?	1 Yes	0 No	2 Already Using
76.11. Electric Water Pump	1 Yes	0 No	2 Already Using

76.12. Other_____

76.13. Other_____

IF ANY OF ABOVE IS YES:

76.14. If you were able to use all the appliances you desire as stated above, how much would you be willing to pay monthly for this overall usage? _____ [RUPEES/MONTH]

77. Generally, how satisfied are you with the electricity situation in your household?

1 Unsatisfied 2 Neutral 3 Satisfied

IF "1 UNSATISFIED"

78. Why are you unsatisfied? [CHECK ALL THAT APPLY]

78.1 Too expensive to consume	1 Yes	0 No
78.2 Not available when you need it	1 Yes	0 No
78.3 Poor quality (voltage fluctuations)	1 Yes	0 No
78.4 Poor maintenance and repair services	1 Yes	0 No

78.5 Other, SPECIFY: _____

***** [*NON-ELECTRIFIED HOUSEHOLDS*] *****

79. If you had grid electricity, what would you use it for [DON'T READ OUT THE OPTIONS, MARK THE FIRST THREE RESPONSES AS 1,2,3 – AFTER THAT READ LEFT OUT OPTIONS AND MARK YES/NO]

79.1. Lighting?	1 Yes	0 No	___
79.2. Fans?	1 Yes	0 No	___
79.3. Electric iron?	1 Yes	0 No	___
79.4. Refrigerator?	1 Yes	0 No	___
79.5. Television?	1 Yes	0 No	___
79.6. Radio?	1 Yes	0 No	___
79.7. Cooler?	1 Yes	0 No	___
79.8. AC?	1 Yes	0 No	___
79.9. Electric stove?	1 Yes	0 No	___
79.10. Computer/Laptop	1 Yes	0 No	___
79.11. Washing machine?	1 Yes	0 No	___
79.12 Water Pump	1 Yes	0 No	

79.13. Other: _____ [SPECIFY]

80. Up to how much would you be willing to spend per month for such usage?
_____ [RUPEES/MONTH]

*****[ALL *NON-GRID HOUSEHOLDS*]*"***

81. Is grid electricity available in your habitation? 1 Yes 0 No

IF YES:

If it is available, then why don't you have grid electricity?

81.1. Is the connection too expensive?	1 Yes	0 No
81.2. Is the monthly bill too expensive?	1 Yes	0 No
81.3. Is it too unreliable?	1 Yes	0 No
81.4. Don't know how to get or whom to ask?	1 Yes	0 No

81.5. Other: _____ [SPECIFY]

82. Are you interested in having grid electricity? 1 Yes 0 No

82.1 What amount are you willing to pay to get electricity connection? ____ [RUPEES]

2. Lighting and Electricity Satisfaction

83. What is the primary source of lighting in your HH?

1 Grid electricity 2 Kerosene lamp/lantern 3 Micro-grid
4 Solar home system or solar lantern 5. Other _____

84. This primary lighting source that you are using:

84.1. Is it adequate to use? 1 Yes 0 No

84.2. Is it reliable? 1 Yes 0 No

84.3. Is it expensive to use? 1 Yes 0 No

84.4. Is it safe to use? 1 Yes 0 No

85. So, overall how satisfied are you with the primary source of lighting in your home?

1 Unsatisfied 2 Neutral 3 Satisfied

86. Compared to 5 years ago, has your satisfaction about lighting in your home:

1 Decreased 2 Remained the same 3 Increased

87. How important is the provision of electricity at community places like schools or chaupal for you?

1 Very important 2 Neutral 3 Not important 99 Don't know

88. Generally, how satisfied are you with the electricity at community places like schools/chaupals?

1 Unsatisfied 2 Neutral 3 Satisfied 99 Don't know

89. How many rupees would you be willing to pay to provide 5 hours per day of community electricity? _____ [RUPEES/MONTH]

90. How important is street lighting for you?

1 Very important 2 Neutral 3 Not important 99 Don't know

91. How many rupees would you be willing to pay to provide street lighting in your habitation?

_____ [RUPEES/MONTH]

92. Would (or does) street lighting increase safety in your habitation?

1 Yes 0 No 99 Don't know

93. Generally, how satisfied are you with the village's street lighting?

1 Unsatisfied 2 Neutral 3 Satisfied

94. Rank the following in order of importance for you [1-4, WITH 1 HIGHEST AND 4 LOWEST]:

94.1. Electrification of households ___
94..2. Street lighting ___
94..3. Electricity for productive usage ___
94..4. Electrification of community spaces ___

95. Do you think people in your village steal electricity?
1 Yes 0 No 99 Don't know 999 Not applicable/not available

96. Do you think stealing electricity is illegal?

1 Yes 0 No 99 Don't know 999 Not applicable/not available

97. Do you think such stealing should be stopped?
1 Yes 0 No 99 Don't know 999 Not applicable/not available

98. How many rupees per month would you be willing to spend for electricity that is available as per your need and would allow you to get artificial light for 12 hours a day, use a fan for 8 hours a day, and charge your mobile phone? _____ [RUPEES PER MONTH]

3. Cooking Situation

[*ENUMERATOR: FOR THIS SECTION, PLEASE INVITE THE HOUSEHOLD'S PRIMARY COOK TO JOIN THE INTERVIEW EVEN IF NOT HOUSEHOLD HEAD***]**

99. [***DON'T ASK, FILL YOURSELF***] Able to interact with the primary cook?

1 Yes 0 No

100. How many meals are cooked in your house every day? _____ [NUMBER]

101. How much time is spent in cooking per day? _____ [HOURS/DAY]

102. Do you use domestic gas (LPG) for cooking? 1 Yes 0 No **(Skip to 105)**

***IF YES*:**

102.1 How many years ago did your house begin to use LPG? _____ [YEARS AGO]

102.2 How much did it cost to install the LPG connection? _____ [RUPEES]

103.3. What all do you cook using LPG?

1 Only chapattis/roti 2 Only vegetables and lentils 3 Rice

4 Only tea/snacks 5 milk boiling 6 water boiling 7. Other (SPECIFY)_____

103.4 How many large LPG cylinders do you use in a year? _____ [NUMBER/YEAR]

103.5 How many large cylinders do you get from authorized distributors?_____ [NUMBER/YEAR]

103.6 How many large cylinders do you get from market? _____ [NUMBER/YEAR]

103.7 How many small LPG cylinders do you use in a year? _____ [NUMBER/YEAR]

103.8 How many small cylinders do you get from authorized distributors? ____[NUMBER/YEAR]

103.9 How many small cylinders you get from market? _____ [NUMBER/YEAR]

103.10 How much does a large cylinder of LPG from authorized distributors cost? _____ [RUPEES/CYLINDER] [If the respondent does not know the answer write "DK"]

103.11 How much does a small cylinder of LPG from authorized distributors cost? _____ [RUPEES/CYLINDER][If the respondent does not know the answer write "DK"]

103.12 How much does a large cylinder of LPG from market cost? [DK IF RESPONDENT DOESN'T KNOW OR IF TAKES TOO LONG TO FIND OUT] ___

103.13 How much does a small cylinder of LPG from market cost? [DK IF RESPONDENT DOESN'T KNOW OR IF TAKES TOO LONG TO FIND OUT] _____ [RUPEES/CYLINDER]

103.14 Is the domestic gas cylinder delivered at your door step? 1 Yes 0 No

IF NO:

103.15 What is the one-way distance in kilometers your household typically travels to get LPG? _____ [KM]

104. Generally, how satisfied are you with the LPG situation in your household?

1 Unsatisfied 2 Neutral 3 Satisfied

IF UNSATISFIED

104.1 Why are you unsatisfied?

1 Too expensive to consume	1 Yes	0 No
2 Poor availability	1 Yes	0 No
3 Too far to procure	1 Yes	0 No
4 Poor maintenance services	1 Yes	0 No

5 Other, SPECIFY: _____

***IF NO [TO QUESTION 103]*:**

105. Why don't you have LPG?

105.1. Is it not available or too far from your village to obtain?	1 Yes	0 No
105.2. Is it too expensive to install an LPG connection?	1 Yes	0 No
105.3. Is the monthly expense of LPG too expensive?	1 Yes	0 No
105.4. Don't know how to get or whom to ask?	1 Yes	0 No

105.5 Other, SPECITY: _____

106. Are you interested in getting LPG? 1 Yes 0 No **(skip to 109)**

107. How much would you be willing to pay for LPG connection? _____ [RUPEES]

108. How much would you be willing to pay on monthly basis for enough LPG for your entire cooking needs? _____ [RUPEES/MONTH]

109. Do you use firewood and chips for cooking? 1 Yes 0 No **(Skip to 113)**

***IF YES*:**

109.1. Typically, how much firewood do you use per week for cooking? _____ [KG/WEEK]

Of this:

109.2. How much is collected by household members? _____ [KG]

109.3. How much is brought from the market? _____ [KG]

110. What is your collection frequency for firewood?

1 Daily 2 A few times a week 3 A few times a month
4 A few times a year 5 Not Applicable/Don't collect firewood

IF DAILY OR WEEKLY:

111. How much time do you spend each time you go for collection?_____HOURS/collection

111.1 What is the one-way distance in kilometers your household typically travels to:

111.1.1. Collect firewood and chips? _____ [KM]

111.1.2. Buy firewood and chips? _____ [KM]

112. How much does a KG of firewood and chips cost? _____ [RUPEES/KG]
[If the respondent does not know the answer write "DK"]

113. Do you use dung cakes for cooking? 1 Yes 0 No **(Skip to 114)**

***IF YES*:**

113.1. Typically, how many dung cakes do you use per week? _____ [PIECES/ WEEK]

113.2. If you bought all of this in market, how much would it cost you? _____ [RUPEES/WEEK]

Of this weekly usage:

113.3. How many are prepared by household members? ____ [PIECES/ WEEK]

113.4. How many are bought from the market? ____ [PIECES/ WEEK]

114. Do you use agro residue for cooking? 1 Yes 0 No **(Skip to 115)**

***IF YES*:**

114.1. Typically, how much agro residue do you use per year? _____ [KG/YEAR]

114.2. How much does a KG of agro residue cost? _____ [RUPEES/KG]

115. Do you use any other fuel for cooking? 1 Yes, SPECIFY _____ 0 No

115.1 How much do you use of this fuel in a month? _____ [UNITS/WEEK]

115.2 How much do you spend on this fuel in a month? _____ [RUPEES/ WEEK]

FOR ALL HOUSEHOLDS

116. Does your household have the following items and how many?

116.1. 3-stone cookstove? Indoor: ____ Outdoor: ____

116.2. Mud cookstove? Indoor: ____ Outdoor: ____

116.3. Improved biomass cookstove? Indoor: ____ Outdoor: ____ Portable: ___

116.4. Kerosene stove? Portable: ____

116.5. LPG gas stove? Portable: ____

116.6. Electric stove? Portable: ____

117. Where do you usually cook? 0 indoor 1 outdoor 2 mixed

4. Cooking Satisfaction

118. What is your primary cooking fuel?

1 Firewood and chips 2 Dung cakes 3 LPG 4 Other _____ [Specify]

119. Generally, how satisfied are you with the availability of this primary cooking fuel to your household?

1 Unsatisfied 2 Neutral 3 Satisfied

IF Unsatisfied:

119.1. Are you cooking less than you want because of poor availability of cooking fuel?

1 Yes 0 No

120. Compared to 5 years ago, has the availability of this fuel:

1 Decreased 2 Remained the same 3 Increased

121. The primary arrangement of cooking that you use:

Produces excessive smoke?	1 Yes	0 No
Is too expensive to use?	1 Yes	0 No
Is too dangerous to use?	1 Yes	0 No
Is too time consuming?	1 Yes	0 No
Has good quality of cooking?	1 Yes	0 No
Is too difficult to use?	1 Yes	0 No

Others: _____

122. So, overall how satisfied are you with your current primary cooking arrangement?

1 Unsatisfied 2 Neutral 3 Satisfied

123. Do you think there is an impact on your health from the cookstove that you use? 1 Yes 0 No

124. Considering the convenience of cooking, compared to traditional cookstove, the LPG-based cooking is:

1 Better 2 Similar 3 Worse 99 Don't know

125. Considering the impact on health, compared to traditional cookstove, the LPG-based cooking is:

1 Better 2 Similar 3 Worse 99 Don't know

126. Have you heard about improved biomass cookstoves? 1 Yes 0 No **(Skip to 129)**

***IF YES*:**

126.1 Compared to traditional cookstove, the improved biomass cookstove is:

1 Better 2 Similar 3 Worse 99 Don't know

127. Have you ever used an improved biomass cookstove in this household?

1 Yes 0 No **(IF NO, Skip to 129)**

***IF YES*:**

127.1. Do you still use it? 1 Yes 0 No

127.2 When did you first use it? _____ [YEARS AGO]

127.3. What was the cost of your improved biomass cookstove? _____ [RUPEES]

127.4. What is the type of clean cookstove?

0 Basic stove with chimney 1 Rocket type 2 Gasification-based

127.5. Who is the provider of the improved biomass cookstove?

0 Government 1 NGO 2 Private vendor

127.6. How satisfied are you with the performance of your improved biomass cookstove?

1 Unsatisfied 2 Neutral 3 Satisfied

IF 1 ("UNSATISFIED"; OTHERWISE GO TO NEXT QUESTION):

127.7. Too difficult to use? 1 Yes 0 No

127.8. Too dangerous to use? 1 Yes 0 No

127.9. Too costly? 1 Yes 0 No

127.10. Breakdown frequently? 1 Yes 0 No

127.11. Poor maintenance service? 1 Yes 0 No

127.12. Other. SPECIFY: _____

128. How much fuel does it save weekly compared to traditional chulha _____ [KG/WEEK]? [*PUT NEGATIVE VALUES IF MORE FUEL CONSUMED THAN TRADITIONAL CHULHA*]

IF NO*: *[ENUMERATOR: READ TO THE RESPONDENT ***]***

Improved biomass cookstoves use biomass fuel for cooking. They burn biomass more efficiently than traditional stoves, reducing fuel use and smoke.

129. Would you consider switching to improved biomass cookstove? 1 Yes 0 No

IF YES:

129.1. At what price would you be willing to buy one? ___ [RUPEES]

Biogas Plants [FOR ALL HOUSEHOLDS]

130. Have you heard about biogas with piped supply for cooking?

1 Yes 0 No **(IF NO, Skip to 134)**

***IF YES*:**

130.1. Compared to traditional cookstove, the biogas-based cooking is:

1 Better 2 Similar 3 Worse 99 Don't know

131. Have you ever used biogas for cooking in your household?

1 Yes 0 No **(IF NO, Skip to 134)**

***IF YES*:**

131.1. Do you still use it? 1 Yes 0 No

131.2. When did you first use it? _____ [YEARS AGO]

131.3. What kind of plant is/was it? 0 Individual 1 Community level

131.4. How satisfied are you with your biogas plant?

1 Unsatisfied 2 Neutral 3 Satisfied

IF 1 ("UNSATISFIED"):

131.5. Too difficult to use? 1 Yes 0 No

131.6. Too dangerous to use? 1 Yes 0 No

131.7. Too costly? 1 Yes 0 No

131.8. Breakdown frequently? 1 Yes 0 No

131.9. Poor maintenance service? 1 Yes 0 No

131.10. Other. SPECIFY: _____

132. Who is the provider of the biogas plant? 0 Government 1 NGO 2 Private vendor

133. What was the upfront cost of the biogas plant? _____ [RUPEES]

***IF NO*:**

[ENUMERATOR READ TO THE RESPONDENT, SHOW IMAGE ***]***

Biogas plants use organic products including dung, waste food to produce biogas. The gas is similar to LPG and is piped directly to your house. These plants also produce organic fertilizer which is used to improve the health of the soil in fields. However, biogas plants need daily attention in terms of maintenance, fuel feed and manure uptake.

134. Would you consider switching to biogas cooking? 1 Yes 0 No

IF YES:

134.1 . At what price would you be willing to install one? _____ [RUPEES]

5. Policy Preference

135. Which of the following should be in charge of the supply of electricity in your village?

1 Government

2 Private corporations

3 Non-governmental organizations

4 Other, specify _____

136. If you got reliable grid electricity, would you be willing to pay same rates as urban population in your state? 1 Yes 0 No

137. Please order the importance of government support to households on items from the following list. RANK THE SELECTION 1-5, WITH 1 MOST IMPORTANT AND 5 LEAST IMPORTANT.

LPG ____ [1-5]

Electricity ____ [1-5]

Kerosene ____ [1-5]

Clean water ____ [1-5]

Education ____ [1-5]

LIGHTING

138. Solar lanterns are portable devices that can be charged in the sun and provide light at night. Do you support government subsidies for solar lanterns, if they are funded by reducing subsidy for kerosene by the same amount?

1 Yes 0 No

139. Have you heard of the Rajiv Gandhi GrameenVidyutikaranYojana (RGGVY) program?

1 Yes 0 No **(Skip to 140)**

***IF YES*:**

139.1. Has your household been electrified under RGGVY? 1 Yes 0 No 99 Don't know

***IF NO*: Why not?**

139.2. No RGGVY in my village 1 Yes **(Skip to 140)** 0 No

139.3. Already had electricity 1 Yes **(Skip to 140)** 0 No

139.4. Connection was too expensive 1 Yes 0 No

139.5. Gram Panchayat did not recommend my household 1 Yes 0 No

139.6. Other. SPECIFY:_____

KEROSENE QUESTIONS(FOR ALL HOUSEHOLDS)

140. What is your monthly quota for PDS kerosene? _____ [LITERS/MONTH] **[**IF RESPONDENT DOESN'T KNOW MARK "DK" and skip to 142**]**

141. In last one year, how frequently it happened that you wanted to buy and you were able to get your entire PDS quota of kerosene?

0. 0-3 months 1. 4-6 months 2. 7-9 months 3. 10-12 months

142. Do people in your village resell subsidized kerosene? 1 Yes 0 No

143. Do you think this practice should be stopped? 1 Yes 0 No

144. Should government condition kerosene subsidy on income? 1 Yes 0 No

145. Should government condition kerosene subsidy on household size? 1 Yes 0 No

146. Should government condition kerosene subsidy on government caste? 1 Yes 0 No

147. Should government condition kerosene subsidy on urban/rural area? 1 Yes 0 No

148. Which of the following should determine the amount of subsidy?

1 Gram panchayat

2 State government

3 Central government

149. What is the level of corruption in the supply of PDS kerosene?

0 Corrupt 1 Neutral 2 Clean 99 Don't know

150. If the government could only subsidize one type of lighting, which one should it be? [CHECK ONE]

0 Kerosene

1 Solar lantern/ Solar home systems

2 Micro-grid

3 Lighting through the regular electric grid

4 Other, specify: _____

LPG QUESTIONS (FOR ALL HOUSEHOLDS)

151 . Which of the following should be in charge of the supply of LPG in your village?

1 Government

2 Private corporations

3. Non-governmental organizations

4. Other, specify _____

152. Do people in your village resell subsidized LPG? 1 Yes 0 No 99 Don't Know 999 NA

153. Do you think that this practice should be stopped? 1 Yes 0 No 99 Don't Know 999 NA

154. Do you think that this practice is legal? 1 Yes 0 No 99 Don't Know 999 NA

155. Please rank the following on the basis of what government should priorities [1 IS HIGHEST PRIORITY, 4 LOWEST PRIORITY]:

155.1. Provision of improved biomass cook-stoves ____ [1-4]

155.2. Increased LPG subsidy ____ [1-4]

155.3. Provision of improved biogas plants ____ [1-4]

115.4 Improved availability of LPG cylinders ____ [1-4]

Revenue Village Module

A. Metadata

1. State _____
2. Division _____
3. District _____
4. Block _____
5. Revenue Village name _____
6. Village census code (2011) _____

B. LEADER CHARACTERISTICS

7. Revenue Village leader's age ____ [AGE IN YEARS]
8. Revenue Village leader's gender 1 Male 0 Female
9. Revenue Village leader's native language _____
10. Read and write native language? 1 Yes 0 No
11. Level of education

    1 No formal schooling 2 Lower primary 3 Middle school

    4 12th standard or diploma 5 Graduate and above
12. Religion 1 Hindu 2 Muslim 3 Other
13. Government caste 1 Scheduled Caste 2 Scheduled Tribe 3 Other Backward Class 4 General 5 Others 6 No Caste
14. Which ration card does your household have?

    0 None 1 APL 2 BPL 3 Antyodaya
15. What is the main source of income in your family?

    1 Own agricultural land 2 Cultivation on leased land 3 Casual agricultural labor
    4 Salaried job 5 Cattle rearing 6 Own business
    7 Daily laborer 8 Other _____ [SPECIFY]
16. How many rupees does your household spend in a typical month? _____ [RUPEES/MONTH]
17. How many rupees does your household save in a typical year? If your household doesn't save money, how much do you need to borrow in a typical year? _____ [RUPEES/YEAR] [NEGATIVE VALUES IF NET BORROWER]
18. Does anyone in your household have a bank account? 1 Yes 0 No
19. Is your household currently indebted? 1 Yes 0 No
20. How much land does your household own? _____ [0 if none] _____Unit

C. REVENUE VILLAGE SITUATION

21. Is there grid electricity in the revenue village? 1 Yes 0 No (**Skip to 21.3**)

***IF YES*:**

21.1. When was the village first electrified? _____ YEAR

21.2. What is the total number of household in each habitation of this revenue village? And how many of them are electrified through grid?

21.2.1. Habitation _____ [NAME] _____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.2. Habitation_____ [NAME] _____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.3. Habitation_____ [NAME] _____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.4. Habitation_____ [NAME] _____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.5. Habitation_____ [NAME] _____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.6. Habitation_____[NAME]_____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

21.2.7. Habitation_____[NAME]_____ [TOTAL HOUSEHOLDS] _____ [ELEC HOUSEHOLDS]

***IF NO*:**

21.3. When is electrification expected? [NA if not] _____ [YEAR]

22. Is there a micro-grid in the revenue village? 1 Yes 0 No **(Skip to 22.6)**

***IF YES*:**

22.1. What is the energy source? _____ [SOURCE]

22.2. Who introduced micro-grid? 1 Government 2 NGO 3 Private company

22.3. How many households are using the micro-grid? _____ [NUMBER]

22.4. Does the micro-grid provide enough power for [CHECK ALL THAT APPLY]:

22.4.1. Lighting	1 Yes	0 No
22.4.2. Mobile charging	1 Yes	0 No
22.4.3. Fans	1 Yes	0 No
22.4.4. Television	1 Yes	0 No
22.4.5. Productive uses	1 Yes	0 No

22.5. For these services, how much the micro-grid provider is charging a household on monthly basis? _____ [Rupees/month]

IF NO:

22.6. When is micro-grid setup expected? [NA if not] _____ [YEAR]

23. How many solar home systems are there in the revenue village? _____ [NUMBER]

***IF MORE THAN ZERO (OTHERWISE, Skip to 24)*:**

23.1. When solar home systems were initially introduced? _____ [YEAR]

23.2. Initially introduced by whom? 1 Government 2 NGO 3 Private company

24. Has government conducted awareness campaigns on solar based electricity in your village?
1 Yes 0 No

IF YES:

24.1. When was the first campaign conducted? _____ [YEAR]

***IF NO*:**

24.2. When is the campaign expected? [NA if not] _____ [YEAR]

25. Is LPG available in the revenue village? 1 Yes 0 No ***(Skip to 26)***

***IF YES*:**

25.1. When did the village first get access to LPG? _____ [YEAR]

25.2. What percentage of households uses LPG for cooking? _____ [PERCENT]

26. Has government conducted awareness campaigns on LPG in your revenue village?
1 Yes 0 No

***IF YES*:**

26.1. When was the first campaign conducted? ____ YEAR ____ MONTH

***IF NO*:**

26.2. When is the campaign expected? [NA if not] _____ [YEAR]

27. Are improved cook stoves used in the revenue village? 1 Yes 0 No ***(Skip to 28)***

***IF YES*:**

27.1. When the improved cook stoves were first introduced in the village?_____ [YEAR]

27.2. Who introduced clean cook stoves? 1 Government 2 NGO 3 Private company

27.3. How many households use improved cook stoves for cooking? _____ [NUMBER]

28. Has government conducted awareness campaigns on clean cook stoves in your revenue village?
1 Yes 0 No

***IF YES*:**

28.1. When was the first campaign conducted? _____ [YEAR]

***IF NO*:**

28.2. When is the campaign expected? [NA if not] _____ [YEAR]

29. Are biogas plants for cooking used in the revenue village? 1 Yes 0 No ***(Skip to 30)***

***IF YES*:**

29.1. When the biogas plants were first introduced in the village? _____ [YEAR]

29.2. Who introduced biogas plants? 1 Government 2 NGO 3 Private company

29.3. How many households use biogas plants for cooking? _____ [NUMBER]

30. Has government conducted awareness campaigns on biogas plants for cooking in your revenue village? 1 Yes 0 No

***IF YES*:**

30.1. When was the first campaign conducted? _____ [YEAR]

***IF NO*:**

30.2. When is the campaign expected? [NA if not] _____ [YEAR]

31. Does the revenue village have a PDS? 1 Yes 0 No

***IF YES*:**

31.1. Is supply enough to fulfill kerosene quota? 1 Yes 0 No

31.2. Has PDS supplied kerosene in past 30 days? 1 Yes 0 No

31.3. Any complaints about corruption? 1 Yes 0 No

***IF NO*:**

31.4. How far is closest PDS? _____ [KILOMETERS]

32. Is the Revenue Village part of the RGGVY scheme? 1 Yes 0 No (***Skip to 33)***

IF YES:

32.1. When were the RGGVY works started? ____ YEAR

32.2. When were the RGGVY works completed? ____ YEAR

32.3. How many BPL households were electrified under RGGVY? _____ NUMBER

32.4. How many APL households were electrified under RGGVY? _____ NUMBER

32.5. What was the connection fee per BPL household? _____ [RUPEES]

32.6. What was the connection fee for APL household? _____ [RUPEES]

33. Is the Revenue Village part of the Remote Village Electrification program?

1 Yes 0 No (***Skip to 34)***

IF YES:

33.1. When were the RVE works started? ____ YEAR

33.2. When were the RVE works completed? ____ YEAR

33.3. How many BPL households were electrified under RVE? _____ NUMBER

33.4. How many APL households were electrified under RVE? _____ NUMBER

33.5. What was the connection fee per BPL household? _____ [RUPEES]

33.6. What was the connection fee for APL household? _____ [RUPEES]

33.7. What is the monthly fee per BPL household? _____ [RUPEES]

33.8. What is the monthly fee for APL household? _____ [RUPEES]

33.9. What is the energy source: _____ [SOURCE]

33.10. Did the gram panchayat supervise the project? 1 Yes 0 No

34. How many community spaces are there in the Revenue Village?

34.1. Primary Schools	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED
34.2. Middle Schools	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED
34.3. Aanganwaadi	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED
34.4. Dispensary	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED
34.5. Religious Place	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED
34.6. Other Community Place	__ NUMBER ELECTRIFIED	__ NUMBER UNELECTRIFIED

35. Is inadequate street lighting creating safety problems? 0 Not at all 1 Sometimes 2 Often

36. Are there any street lights in the Revenue Village? 1 Yes 0 No **(*Skip to 37)***

***IF YES*:**

36.1. How many street lights are there?	_____ [NUMBER]		
36.2. When were the street-lights installed?	____ [YEAR]		
36.3. Who has installed them?	1 Government	2 NGO	3 Private company
36.4. Who maintains them?	1 Government	2 NGO	3 Private company
36.5. Are they currently functional?	0 None	1 Some	2 All
36.6. Is the lighting adequate?	0 Not at all	1 Somewhat	2 Completely

37. Are there pump-sets in the Revenue Village, used for irrigation? 1 Yes 0 No **(*Skip to 38)***

***IF YES*:**

37.1. Number of pump-sets in the Revenue Village electrified by:

__Grid electricity __ Diesel __ Solar

38. How many of following instances are there in the Revenue Village?

38.1. __ Electric thrasher / agro-processor

38.2. __ Flour Mill

38.3. __ Milk chilling center

38.4. __ IT kiosk

38.5. __ Other productive usage of electricity (Specify)_____