

MTF BURUNDI Household Questionnaire

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

VARIABLES TO BE PREFILLED

No sub-sections, No rosters, Questions: 8.

IDENTIFICATION OF HOUSEHOLDS

No sub-sections, No rosters, Questions: 4, Static texts: 1.

INTERVIEW DETAILS

No sub-sections, No rosters, Questions: 8.

A1. MEMBERS OF THE HOUSEHOLD

No sub-sections, Rosters: 1, Questions: 16, Static texts: 3, Variables: 3.

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD

Sub-sections: 5, No rosters, Questions: 81, Static texts: 4, Variables: 2.

B. HOUSEHOLD CHARACTERISTICS

No sub-sections, No rosters, Questions: 30.

C. SUPPLY AND DEMAND OF ELECTRICITY

Sub-sections: 7, Rosters: 1, Questions: 194, Static texts: 3.

D. WILLINGNESS TO PAY FOR A GRID CONNECTION

No sub-sections, No rosters, Questions: 10, Static texts: 3, Variables: 4.

E. WILLINGNESS TO PAY FOR SOLAR DEVICE

Sub-sections: 2, No rosters, Questions: 13, Static texts: 4, Variables: 5.

F. HOUSEHOLD ASSETS: ELECTRICAL APPLIANCES

No sub-sections, Rosters: 1, Questions: 6.

G. LIGHTING SOURCES

No sub-sections, Rosters: 2, Questions: 14, Static texts: 1, Variables: 1.

H. USE OF COOKING SOLUTIONS

Sub-sections: 1, Rosters: 2, Questions: 42, Static texts: 5, Variables: 1.

I. HOUSEHOLD FUEL CONSUMPTION

No sub-sections, Rosters: 2, Questions: 17, Static texts: 1.

J. SPACE AND WATER HEATING

No sub-sections, No rosters, Questions: 5.

K. WILLINGNESS TO PAY FOR AN IMPROVED COOKSTOVE

Sub-sections: 3, No rosters, Questions: 20, Static texts: 9, Variables: 6.

L. TIME USE

No sub-sections, Rosters: 1, Questions: 10, Static texts: 2.

M. HEALTH IMPACTS

No sub-sections, Rosters: 1, Questions: 13, Static texts: 2, Variables: 1.

N. HOUSEHOLD ECONOMIC SHOCKS

No sub-sections, Rosters: 1, Questions: 4.

O. CONSUMPTION / EXPENDITURE

Sub-sections: 3, Rosters: 3, Questions: 11, Static texts: 1.

P. HOUSEHOLD LAND OWNERSHIP AND OTHER ASSETS

No sub-sections, Rosters: 1, Questions: 5, Static texts: 1.

R. ATTITUDES

No sub-sections, No rosters, Questions: 6, Variables: 1.

Q. WOMEN'S EMPOWERMENT

Sub-sections: 1, Rosters: 1, Questions: 16, Static texts: 2.

END OF INTERVIEW

No sub-sections, No rosters, Questions: 5.

APPENDIX A — ENABLING CONDITIONS

APPENDIX B — VALIDATION CONDITIONS AND MESSAGES

APPENDIX C — CATEGORIES

APPENDIX D — VARIABLES

APPENDIX E — CATEGORIES FILTERS

LEGEND

SURVEY IDENTIFICATION INFORMATION QUESTIONNAIRE DESCRIPTION

Basic information

Title MTF BURUNDI Household Questionnaire

VARIABLES TO BE PREFILLED

0.01. Province	<p>SINGLE-SELECT s00q01</p> <p>01 <input type="radio"/> Bubanza</p> <p>02 <input type="radio"/> Bujumbura Mairie</p> <p>03 <input type="radio"/> Bujumbura Rural</p> <p>04 <input type="radio"/> Bururi</p> <p>05 <input type="radio"/> Cankuzo</p> <p>06 <input type="radio"/> Cibitoke</p> <p>07 <input type="radio"/> Gitega</p> <p>08 <input type="radio"/> Karuzi</p> <p>09 <input type="radio"/> Kayanza</p> <p>10 <input type="radio"/> Kirundo</p> <p>11 <input type="radio"/> Makamba</p> <p>12 <input type="radio"/> Muramvya</p> <p>13 <input type="radio"/> Muyinga</p> <p>14 <input type="radio"/> Mwaro</p> <p>15 <input type="radio"/> Ngozi</p> <p>16 <input type="radio"/> Rumonge</p> <p>And 2 other symbols [3]</p>
0.02. Commune	<p>TEXT s00q02</p> <p>.....</p>
0.03. Colline	<p>TEXT s00q03</p> <p>.....</p>
0.04. Enumeration Area name	<p>TEXT s00q04</p> <p>.....</p>
0.05. Localité	<p>TEXT s00q05</p> <p>.....</p>
0.06. Household ID	<p>NUMERIC: INTEGER s00q06</p> <p>-----</p>
0.07. Name of Household Head	<p>TEXT s00q07</p> <p>.....</p>
0.08. GPS Coordinates of the Dwelling	<p>GPS gps_listing</p> <p>-----</p> <p>N</p> <p>-----</p> <p>W</p> <p>-----</p> <p>A</p>

IDENTIFICATION OF HOUSEHOLDS

STATIC TEXT

INTRODUCTION and CONSENT REQUEST

Hello, how are you doing today?

My name is [ENUMERATOR: SHOW THE PERMIT AND THE LETTERS OF AUTHORIZATION].

Your household was been randomly selected for this survey. If you don't mind, I'd like to ask you questions about your household's energy use, your energy expenses, your cooking solutions and lighting sources, health impacts, and time use, among other topics.

Please note that your answers will assist the government in planning energy access projects and energy sector development initiatives that will benefit citizens. Reports generated by this study will not contain personal information such as phone numbers or names of respondents. The information you provide will be kept strictly confidential and will not be shown to other people. No personal identifying information will be collected. The survey will take 1 to 2 hours. Are you ready to participate?

Please note that your participation in this interview is in NO way related to your personal chances of receiving any assistance or compensation. This is voluntary participation and you can choose not to answer some or all of the questions if you wish. However, we hope you participate, because your opinion is important.

Do you have any questions for me? [\[IF THE RESPONDENT HAS ANY QUESTIONS, ANSWER AND CONTINUE\]](#)

Consent: Can I start the interview now?	SINGLE-SELECT cons 01 <input type="radio"/> No, permission is not granted 02 <input type="radio"/> Yes, permission is granted
0.09. Language of interview E cons==1	SINGLE-SELECT s00q09 01 <input type="radio"/> Kirundi 02 <input type="radio"/> French 03 <input type="radio"/> English
0.10. Household Head Phone Number. E cons==1 V1 \$phoneformat M1 Error	TEXT s00q10
0.11. New GPS Coordinates of the Dwelling E cons==1	GPS s00q11 ----- N ----- W ----- A

INTERVIEW DETAILS

E cons==1

<p>0.12. Enumerator name</p>	<p>SINGLE-SELECT: COMBO BOX s00q12</p> <p>01 <input type="radio"/> Diomede Nkenshima</p> <p>02 <input type="radio"/> Jesus Marie Uwimana</p> <p>03 <input type="radio"/> Diane Kaneza</p> <p>04 <input type="radio"/> Brunel Bazikamwe</p> <p>05 <input type="radio"/> Sebastien Ntiranyibagira</p> <p>06 <input type="radio"/> Aline Karibwami</p> <p>07 <input type="radio"/> Nestor Bayubahe</p> <p>08 <input type="radio"/> Emmanuel Nibayubahe</p> <p>09 <input type="radio"/> Eliane Hamenyimana</p> <p>10 <input type="radio"/> Emmanuel Niyongabo</p> <p>11 <input type="radio"/> Salvator Manirabarusha</p> <p>12 <input type="radio"/> Seraphine Ndayirorere</p> <p>13 <input type="radio"/> Estella Nininahazwe</p> <p>14 <input type="radio"/> Chantal Gatore</p> <p>15 <input type="radio"/> Ferdiinand Ntungumburanye</p> <p>16 <input type="radio"/> Sophonie Ndayishimiye</p> <p>And 65 other symbols [4]</p>
<p>0.13. Supervisor name</p>	<p>SINGLE-SELECT: CASCADING s00q13</p> <p>01 <input type="radio"/> NIYONGABO Augustin</p> <p>02 <input type="radio"/> NIYONGABO Augustin</p> <p>03 <input type="radio"/> NIYONGABO Augustin</p> <p>04 <input type="radio"/> NIYONGABO Augustin</p> <p>05 <input type="radio"/> Audace Mbonyingingo</p> <p>06 <input type="radio"/> Audace Mbonyingingo</p> <p>07 <input type="radio"/> Audace Mbonyingingo</p> <p>08 <input type="radio"/> Immaculate Nshimirimana</p> <p>09 <input type="radio"/> Manirakiza Richard</p> <p>10 <input type="radio"/> Manirakiza Richard</p> <p>11 <input type="radio"/> Manirakiza Richard</p> <p>12 <input type="radio"/> Manirakiza Richard</p> <p>13 <input type="radio"/> NDAMANISHA Alexis</p> <p>14 <input type="radio"/> NDAMANISHA Alexis</p>
<p>ENUMERATOR:PLEASE TICK THE FIRST VISIT</p> <p>F @optioncode==1</p>	<p>SINGLE-SELECT visite1</p> <p>01 <input type="radio"/> First visit</p> <p>02 <input type="radio"/> Second visit</p> <p>03 <input type="radio"/> Third visit</p>
<p>0.14. Date of first Interview</p> <p>E visite1==1</p>	<p>DATE: CURRENT TIME s00q14</p> <p>.....</p>
<p>ENUMERATOR:PLEASE TICK THE SECOND VISIT</p> <p>F @optioncode==2</p> <p>E visite1==1 && a1!=null && s00q23b!=null</p>	<p>SINGLE-SELECT visite2</p> <p>01 <input type="radio"/> First visit</p> <p>02 <input type="radio"/> Second visit</p> <p>03 <input type="radio"/> Third visit</p>

<p>0.15. Date of Second Interview</p> <p>E visite2==2</p>	<p>DATE: CURRENT TIME s00q15</p> <p>.....</p>
<p>ENUMERATOR:PLEASE TICK THE THIRD VISIT</p> <p>F @optioncode==3</p> <p>E visite1==2 && a1!=null && s00q24b!=null</p>	<p>SINGLE-SELECT visite3</p> <p>01 <input type="radio"/> First visit</p> <p>02 <input type="radio"/> Second visit</p> <p>03 <input type="radio"/> Third visit</p>
<p>0.16. Date of Third Interview</p> <p>E visite3==3</p>	<p>DATE: CURRENT TIME s00q16</p> <p>.....</p>

A1. MEMBERS OF THE HOUSEHOLD

E cons==1

STATIC TEXT

IN ORDER TO MAKE A COMPREHENSIVE LIST OF INDIVIDUALS CONNECTED TO THE HOUSEHOLD, USE THE FOLLOWING PROBE QUESTIONS:

First, give me the names of all the members of your immediate family who normally live and eat their meals together here for the last 6 months.

WRITE DOWN NAMES, SEX, AND RELATIONSHIP TO HH HEAD (Q2 - Q4). LIST HOUSEHOLD HEAD ON LINE 1.

Then, give me the names of any other persons related to you or other household members who normally live and eat their meals together here.

FILL IN Q2 - Q4.

Are there any other persons not here now who normally live and eat their meals here? For example, household members studying elsewhere or traveling.

FILL IN Q2 - Q4.

Then, give me the names of any other persons not related to you or other household members, but who normally live and eat their meals together here, such as servants, lodgers, or other who are not relatives. FILL IN Q2 - Q4.

DO NOT LIST HOUSEHELP WHO HAVE A HOUSEHOLD ELSEWHERE, AND GUESTS WHO ARE VISITING TEMPORARILY AND HAVE A HOUSEHOLD ELSEWHERE. IF MORE THAN 20 INDIVIDUALS, USE SECOND QUESTIONNAIRE.

STATIC TEXT

ENUMERATOR: The name of the head of household is %s00q07% . Please ask the household to confirm.

1. If it's still the same person then **report the same name in 1st** on the list below.

2. If you have confirmation that he is not the head of household then **enter in 1** on the list below the name of the new head of household.

<p>A1. FIRST NAMES AND NAMES</p> <p>I Make a complete list of all the individuals who normally live and eat their meals together in this house, starting with the head of household.</p> <p>W1 // tous les noms doivent être de 5 caractères ou plus a1 .A11(x=>x.Item2.Length>=5)</p> <p>M1 ERROR: At least one name seems too short to be the first and last name of a household member. Please confirm</p> <p>V2 // le nombre de noms distincts... a1.Select(x=>x.Item2.ToUpper()).Distinct().Count() == // ... doit être être ég a1 au nombre de noms saisi a1.Count()</p> <p>M2 ERROR: At least one name is not composed of a first name and a last name. Please correct</p>	<p>LIST a1</p> <p>.....</p>
<p>VARIABLE a1.Length</p>	<p>DOUBLE NbrMembresMen</p>

A1. MEMBERS OF THE HOUSEHOLD

Roster: MEMBER DETAILS

generated by list question [a1](#)

membr_details

STATIC TEXT

E s00q14==null

ENUMERATOR: YOU DID NOT FILL IN THE PART ABOUT THE VISITS. YOU SHOULD ABSOLUTELY DO THIS BEFORE FILLING IN THIS SECTION.

<p>VARIABLE @rowcode</p>	<p>LONG a2</p> <p>This variable is excluded from the exported data</p>
<p>A3. Is %rostertitle% male or female?</p>	<p>SINGLE-SELECT a3</p> <p>01 <input type="radio"/> Male</p> <p>02 <input type="radio"/> Female</p>

A4. What is the connection between %rosteritle% and the head of household?

SINGLE-SELECT

a4

- 01 Head
- 02 Spouse
- 03 Child/adopted child
- 04 Grandchild
- 05 Niece/Nephew
- 06 Father/Mother
- 07 Sister/Brother
- 08 Son/Daughter-in-law
- 09 Brother/Sister-in-law
- 10 Father/Mother-in-law
- 11 Grandfather/mother
- 12 Other relative
- 13 House help/House help's relative
- 14 Other non-relative

V1 /// This code checks that the head and his/her spouse are not of the same gender self == 1 ? (membre_details.Count(x=> x.a4==2 && ((x.a3) == (a3)))==0): self == 2 ? (membre_details.Count(x=> x.a4==1 [And 31 other symbols f1](#))

M1 It is unlikely that the head of household is of the same sex as his or her spouse. Please confirm.

V2 /* Check household contains only one head */ // If the member is head of household then ... self == 1 ? /* ... he is the only one to have been declared as head of household */ membre_details.Count [And 29 other symbols f1](#)

M2 There must be one and only one head of household. Please confirm.

V3 // if current person is head's child self == 3 ? membre_details.Count(x=> x.a4 == 1 && ((x.a5 - (a5)) <= 12)) == 0 : // if current person is head self == 1 ? membre_details.Count(x=> x.a4 == 3 [And 35 other symbols f1](#))

M3 The age difference between the head and his child does not seem correct. Please check age and relationship.

V4 /* =====
===== AGE DIFFERENCE BETWEEN PDM AND PARENT < 12 YEARS =====
===== [And 282 other symbols f1](#)

M4 The age difference between the head and his parents does not seem to be correct. Please check age and relationship.

V5 /* =====
===== AGE DIFFERENCE BETWEEN PDM'S SPOUSE AND PDM'S PARENTS >= 12 YEARS =====
===== [And 307 other symbols f1](#)

M5 The age difference between the head's spouse and their parents does not seem to be correct. Please check age and relationship.

V6 /* =====
===== AGE DIFFERENCE BETWEEN PDM AND GRANDCHILDREN >= 24 YEARS =====
===== [And 299 other symbols f1](#)

M6 The age difference between the head and his grandchildren does not seem correct. Please check age and relationship.

V7 /* Check that there is no woman in the household who has more than one husband. The audit will only focus on the women reported as head of household. */ // If the head of the household is a woman the [And 146 other symbols f1](#)

M7 Inconsistency. It is unlikely that a woman will be married to more than one man in the same household. Please check.

W8 /* It is unlikely that a woman is head of household and that her husband lives in the household. So we check for any female head of household that she does not have spouse in the household */ // If t [And 209 other symbols f1](#)

M8 Inconsistency. It is unlikely that a woman will be head of household while her husband lives in the household. Please check.

V9 // If the member is the HH head... @rowcode == 1 ? // then the relationship must be 1==Head HH (self == 1): // All case is true true

M9 Inconsistency. This member is the head of HH. So his relationship the head is still HH head

Please specify the other link between %rosteritle% and the head of household

TEXT

a4_autre

E a4.InList(12,14)

A5. How old is %rosteritle%?

NUMERIC: INTEGER

a5

I Register "0" if it is an infant under 1 year of age.

V1 self.InRange(0,100)

M1 Inconsistent. It is unlikely that %rosteritle% is more than 100 years old. Please check

A6. Has %rosteritle% ever been to school?

SINGLE-SELECT

a6

- 01 Yes
- 02 No

E // posé aux membres qui ont 5 ans et plus a5>=5

<p>A7. What is the highest grade %rostertitle% has attained?</p> <p>E // posé seulement si a été à l'école a6==1</p>	<p>SINGLE-SELECT a7</p> <p>001 <input type="radio"/> Nursey School (3 Years)</p> <p>002 <input type="radio"/> Fundamental (Former Primary And Junior Secondary) (9 Years)</p> <p>003 <input type="radio"/> Post- Fundamental (Former Secondary Senior) (3 Years)</p> <p>004 <input type="radio"/> Technical secondary School (3 Years)</p> <p>005 <input type="radio"/> University: Bachelor</p> <p>006 <input type="radio"/> University: Master</p> <p>007 <input type="radio"/> University: PhD</p> <p>008 <input type="radio"/> Adult Education</p> <p>111 <input type="radio"/> None</p> <p>096 <input type="radio"/> Other (Specify)</p>
<p>A7Autre. Other specify.</p> <p>E a7==96</p>	<p>TEXT a7autre</p> <p>.....</p>
<p>A8. What is %rostertitle%'s marital status</p> <p>E a5 >= 12</p>	<p>SINGLE-SELECT a8</p> <p>01 <input type="radio"/> Married, Monogamous</p> <p>02 <input type="radio"/> Married, Polygamous</p> <p>03 <input type="radio"/> Cohabiting, Single Partner</p> <p>04 <input type="radio"/> Never Married</p> <p>05 <input type="radio"/> Divorced/separated</p> <p>06 <input type="radio"/> Widowed</p>
<p>A9. How often does %rostertitle% cook for the household?</p> <p>E a5 >= 12</p>	<p>SINGLE-SELECT a9</p> <p>01 <input type="radio"/> Every day</p> <p>02 <input type="radio"/> Several times a week</p> <p>03 <input type="radio"/> Once a week</p> <p>04 <input type="radio"/> Several times in the month</p> <p>05 <input type="radio"/> Once a month</p> <p>06 <input type="radio"/> Never</p>
<p>A10. What was the main occupation of %rostertitle% in the last 12 months?</p> <p>E a5 >= 15</p>	<p>SINGLE-SELECT a10</p> <p>01 <input type="radio"/> Non-Farm Enterprise owner/Entrepreneur</p> <p>02 <input type="radio"/> Wage Employee, Non-Farm</p> <p>03 <input type="radio"/> Wage Employee, Farm</p> <p>04 <input type="radio"/> Self-Employed Non-Farm-Independent contractor, technician, professional, etc</p> <p>05 <input type="radio"/> Technician, professional, etc.</p> <p>06 <input type="radio"/> Self-Employed Agriculture/Livestock</p> <p>07 <input type="radio"/> Assistance in family enterprise</p> <p>08 <input type="radio"/> Casual/Day Laborer</p> <p>09 <input type="radio"/> Intern/free labor/voluntary work</p> <p>10 <input type="radio"/> Student</p> <p>11 <input type="radio"/> Retired/pensioner</p> <p>12 <input type="radio"/> Not working/unemployed</p> <p>96 <input type="radio"/> Other (specify)</p>
<p>A10other. Other (specify)</p> <p>E a10 == 96</p>	<p>TEXT a10autre</p> <p>.....</p>

<p>A11. Over the last 12 months, how many MONTHS has %rosteritle% worked in this activity?</p> <p>I If less than 1 month, record 1. E a5>=15 && !a10.InList(6,9,10,11,12) V1 self.InRange(1, 12) M1 Error: Number between 1 and 12.</p>	<p>NUMERIC: INTEGER a11</p> <p>-----</p>
<p>A12. How many days per month did %rosteritle% work in this activity?</p> <p>E a5>=15 && !a10.InList(9,10,11,12) V1 self.InRange(1, 31) M1 Error: Number between 1 and 31 months</p>	<p>NUMERIC: INTEGER a12</p> <p>-----</p>
<p>VARIABLE membre_details.Any(x=> x.a10==1)</p>	<p>BOOLEAN a16a</p>
<p>A16b. Where are the premises of the non-agricultural businesses owned by the household (see A10)?</p> <p>I MULTIPLE RESPONSES E a16a==true</p>	<p>MULTI-SELECT a16b</p> <p>001 <input type="checkbox"/> Within/adjacent to your dwelling/compound 002 <input type="checkbox"/> Within the same village 003 <input type="checkbox"/> Outside of the village 555 <input type="checkbox"/> Other, specify</p>
<p>A16b_oth. Please specify "Other".</p> <p>E a16b.Contains(555)</p>	<p>TEXT a16b_autre</p> <p>-----</p>

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD

E cons==1 && a16b.Contains(1)

STATIC TEXT

The following questions are only for the non-farm business with the highest annual revenues and whose premises are inside or next to the dwelling

<p>A17. Which member(s) of the household are owners of the non-agricultural business with the highest annual income and whose premises are located inside or next to the dwelling?</p> <p>I If more than 1 enterprise, ask only for the enterprise with higher annual revenues. Read aloud all the names.</p> <p>F \$lowestAge</p>	<p>MULTI-SELECT: LINKED a17</p>
<p>A18. Respondent to this section</p> <p>I ENUMERATOR: The respondent for this section should be the business owner/operator for this enterprise. If not present, the best-informed household member.</p> <p>F \$minAgeHH</p>	<p>SINGLE-SELECT: LINKED a18</p>
<p>A19. In the last 12 months, in which months did this enterprise operate?</p> <p>V1 self.ContainsOnly(111) || !self.Contains(111)</p> <p>M1 Error: Cannot select "All year round" with another option. Please check</p>	<p>MULTI-SELECT a19</p> <p>001 <input type="checkbox"/> January</p> <p>002 <input type="checkbox"/> February</p> <p>003 <input type="checkbox"/> March</p> <p>004 <input type="checkbox"/> April</p> <p>005 <input type="checkbox"/> May</p> <p>006 <input type="checkbox"/> June</p> <p>007 <input type="checkbox"/> July</p> <p>008 <input type="checkbox"/> August</p> <p>009 <input type="checkbox"/> September</p> <p>010 <input type="checkbox"/> October</p> <p>011 <input type="checkbox"/> November</p> <p>012 <input type="checkbox"/> December</p> <p>111 <input type="checkbox"/> All year</p>
<p>A20. What is the main activity of this enterprise?</p>	<p>SINGLE-SELECT a20</p> <p>001 <input type="radio"/> Manufacturing (food or other processing)</p> <p>002 <input type="radio"/> Cottage industry/handicrafts</p> <p>003 <input type="radio"/> Shops/trading</p> <p>004 <input type="radio"/> Services (mobile phone recharge or repair / tailoring / barber / eatery)</p> <p>555 <input type="radio"/> Other, specify</p>
<p>A20_oth. Please specify "Other".</p> <p>E a20==555</p>	<p>TEXT a20_autre</p> <p>.....</p>
<p>A21. Is this enterprise registered?</p>	<p>SINGLE-SELECT a21</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

<p>A22. How long has this enterprise been in operation for (years)?</p> <p>V1 self>=0</p> <p>M1 Error</p>	<p>NUMERIC: INTEGER a22</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A23. What was the total revenue of this business or activity in the last month that it was operating?</p> <p>W1 \$multiple5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error</p>	<p>NUMERIC: INTEGER a23</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A.24 What was the total operating cost last month (business-related expenditure, for example buying raw materials)?</p> <p>W1 \$multiple5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error</p>	<p>NUMERIC: INTEGER a24</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A25. Could you please estimate the total revenue for this business or activity in a typical month, that is, a month that is neither the busiest nor the slowest of the year?</p> <p>W1 \$multiple5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error</p>	<p>NUMERIC: INTEGER a25</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A26. In a typical month, how many hours does your enterprise operate on an average day (max 24 hours)?</p> <p>V1 self.InRange(1,24)</p> <p>M1 Error: Number to be between 1 and 24 hours</p>	<p>NUMERIC: INTEGER a26</p> <p>-----</p>
<p>A27. In a typical month, how many hours does your enterprise operate between 6pm and 6am (max 12 hours)?</p> <p>V1 self.InRange(1,12)</p> <p>M1 Error: Number to be between 1 and 12 hours</p>	<p>NUMERIC: INTEGER a27</p> <p>-----</p>
<p>A28. Are your working hours limited by the supply of electricity in your enterprise?</p>	<p>SINGLE-SELECT a28</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

<p>A29. What are the sources of electricity that you use in your enterprise</p> <p>I ENUMERATOR: define if necessary the different sources. V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "no electricity" with any other source</p>	<p>MULTI-SELECT a29</p> <p>001 <input type="checkbox"/> National grid REGIDESO 002 <input type="checkbox"/> Mini-grid 003 <input type="checkbox"/> Electric generator 004 <input type="checkbox"/> Solar Lantern 005 <input type="checkbox"/> Solar Lighting System 006 <input type="checkbox"/> Solar Home System 007 <input type="checkbox"/> Rechargeable Battery 008 <input type="checkbox"/> Dry-cell battery 111 <input type="checkbox"/> No electricity</p>
<p>A30. Which one of the sources mentioned in previous question is the main source of electricity for your enterprise?</p> <p>I Only one answer is possible F a29.Contains(@optioncode) E !a29.ContainsAny(111,8) && a29.Length>1</p>	<p>SINGLE-SELECT a30</p> <p>001 <input type="radio"/> National grid REGIDESO 002 <input type="radio"/> Mini-grid 003 <input type="radio"/> Electric generator 004 <input type="radio"/> Solar Lantern 005 <input type="radio"/> Solar Lighting System 006 <input type="radio"/> Solar Home System 007 <input type="radio"/> Rechargeable Battery 008 <input type="radio"/> Dry-cell battery 111 <input type="radio"/> No electricity</p>
<p>A31. What are the most serious problems you experience with your main source of electricity for your enterprise? (%a30%) ?</p> <p>I Record up to 2 responses. E !a29.ContainsAny(111,8) V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "no electricity" with any other source</p>	<p>MULTI-SELECT: ORDERED a31</p> <p>001 <input type="checkbox"/> Supply shortage/not enough hours of electricity 002 <input type="checkbox"/> Low/high voltage problems or voltage fluctuations 003 <input type="checkbox"/> Unpredictable interruptions 004 <input type="checkbox"/> Unexpectedly high bills 005 <input type="checkbox"/> High cost of electricity 006 <input type="checkbox"/> Do not trust the supplier 007 <input type="checkbox"/> Cannot power large appliances 008 <input type="checkbox"/> Maintenance/service problems 555 <input type="checkbox"/> Other, specify 111 <input type="checkbox"/> No problems</p>
<p>A31_oth. Please specify "Other".</p> <p>E a31.Contains(555)</p>	<p>TEXT a31_autre</p> <p>.....</p>
<p>A32. Which sources of electricity are used ONLY for the enterprise (and NOT for household use)?</p> <p>F a29.Contains(@optioncode) || @optioncode==111 E !a29.ContainsAny(111,8) V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "no source" with any other source</p>	<p>MULTI-SELECT a32</p> <p>001 <input type="checkbox"/> National grid REGIDESO 002 <input type="checkbox"/> Mini-grid 003 <input type="checkbox"/> Electric generator 004 <input type="checkbox"/> Solar Lantern 005 <input type="checkbox"/> Solar Lighting System 006 <input type="checkbox"/> Solar Home System 007 <input type="checkbox"/> Rechargeable Battery 008 <input type="checkbox"/> Dry-cell battery 111 <input type="checkbox"/> No source 555 <input type="checkbox"/> Other, specify</p>
<p>A32_oth. Please specify "Other".</p> <p>E a32.Contains(555)</p>	<p>TEXT a32_autre</p> <p>.....</p>

A33. Other than electricity, which other sources of energy do you also use for your enterprise?

MULTI-SELECT

a33

- 001 LPG/cooking gas
- 002 Wood purchased
- 003 Wood collected
- 004 Charcoal
- 005 Kerosene
- 006 Piped Natural Gas
- 007 Coal/lignite
- 008 Animal Waste/Dung
- 009 Crop Residue/Plant Biomass
- 010 Saw Dust
- 011 Coal Briquette
- 012 Biomass Briquette
- 013 Processed biomass (pellets)/woodchips
- 014 Biogas
- 015 Ethanol
- 016 Garbage/plastic

[And 5 other symbols \[5\]](#)

I Multiple response possible
 V1 self.containsOnly(111) || !self.contains(111)
 M1 Error: Cannot select "no source" with any other source

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD
 GRID / MINI GRID

E a29.containsAny(1,2)

STATIC TEXT

Now I'm going to ask you some questions about the electrical grid (or mini-grid) you use for your business.

A34. Is the electricity connection for the enterprise the same as for the household?

SINGLE-SELECT

a34

- 01 OUI
- 02 NON

A35. Does the enterprise have a separate electricity bill from household use?

SINGLE-SELECT

a35

- 01 OUI
- 02 NON

A36. How are you billed for electricity for your enterprise?

SINGLE-SELECT

a36

I ENUMERATOR: Read options aloud
 E a35==1

- 001 Per kWh based on the meter reading (including pre-paid meter)
- 005 Per kWh with pre-paid meter
- 002 Fixed monthly fee
- 003 Pay based on lights and appliances used
- 004 Utility estimates consumption
- 555 Other, specify
- 111 No bill for electricity

A36other. Please specify other

TEXT

a36_autre

E a36==555

.....

<p>A37. What is the most common way to make your electricity bill payment for your enterprise?</p> <p>E a35==1 && a36!=111</p>	<p>SINGLE-SELECT a37</p> <p>001 <input type="radio"/> Vouchers/tokens/pre-paid card from local store</p> <p>002 <input type="radio"/> Credits using mobile money</p> <p>003 <input type="radio"/> Pay at the utility office</p> <p>004 <input type="radio"/> Pay at the bank/post office</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> Doesn't pay for electricity</p>
<p>A37other. Please specify other</p> <p>E a37==555</p>	<p>TEXT a37_autre</p> <p>.....</p>
<p>A38. Enumerator: Ask if the respondent pays the energy company or has a record of the electricity payment, ask to see the electricity bill/invoice and use it for A39 to A42.</p> <p>E a35==1 && a36!=111</p>	<p>SINGLE-SELECT a38</p> <p>01 <input type="radio"/> Respondent has energy bill and shows it</p> <p>02 <input type="radio"/> Respondent has energy bill but refuses to show it or could not locate it</p> <p>03 <input type="radio"/> Respondent does not have an energy bill</p>
<p>A39. Is the last bill charged monthly?</p> <p>E a35==1 && a36!=111 && a38==1</p>	<p>SINGLE-SELECT a39</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A40. How many days does the last bill/pre-pay recharge cover?</p> <p>E a35==1 && a39==2</p> <p>W1 self.InRange(1,365)</p> <p>M1 Error: The bill cannot cover more than one year</p>	<p>NUMERIC: INTEGER a40</p> <p>-----</p>
<p>A41. In the last bill (or pre-pay invoice/recharge), how much did you spend (in Fbu) on the electric bill for your enterprise?</p> <p>I See answer on the last invoice.</p> <p>E a35==1 && a38==1</p> <p>V1 \$multiplye5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error: This amount cannot be negative. Please correct</p>	<p>NUMERIC: INTEGER a41</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A42. Last month, how much electricity in kilowatt hours (kWh) did your enterprise use?</p> <p>I See answer on the last invoice.</p> <p>E a35==1 && a38==1</p>	<p>NUMERIC: INTEGER a42</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A43. In a typical month, how many hours of electricity are available each day and night from the grid (national or mini-grid)?</p> <p>I Max 24 hours</p> <p>E a35==1</p> <p>V1 self.InRange(1,24)</p> <p>M1 Error: Number cannot be more than 24</p>	<p>NUMERIC: INTEGER a43</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>A44. Out of the A_27% nighttime hours during which your business usually operates, how many hours of electricity are available from the national grid or mini grid?</p> <p>E a35==1</p>	<p>NUMERIC: INTEGER a44</p> <p>-----</p>
<p>A45. In a typical week, how many unscheduled outages/blackouts does the enterprise experience?</p> <p>E a35==1</p> <p>V1 se1f>0</p> <p>M1 Error: The value must be equal to or greater than 1. Cannot exceed 40.</p>	<p>NUMERIC: INTEGER a45</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>111 No blackouts</p> <p>098 Don't know</p>
<p>STATIC TEXT</p> <p>E a35==1 && a45>0</p>	
<p><i>A46. In a typical week, what is the total duration of all the unscheduled outages/blackouts</i></p>	
<p>A46H. HOURS</p> <p>I ENUMERATOR: Record number of hours</p> <p>E a35==1 && a45>0</p> <p>V1 se1f.InRange(0,168)</p> <p>M1 This duration must not exceed 168 hours of the week. Please check</p>	<p>NUMERIC: INTEGER a46h</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A46M. MINUTES</p> <p>I ENUMERATOR: Record minutes here</p> <p>E a35==1 && a45>0</p> <p>V1 se1f.InRange(0,59)</p> <p>M1 Error: The number of minutes cannot be negative and must not exceed 59. If 60 min and more, it is necessary to convert to hour.</p>	<p>NUMERIC: INTEGER a46m</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A47. During a typical month, what are the three main ways your business is affected by an electricity outage? (including scheduled outages)</p> <p>I Do not prompt. Multiple responses possible.</p> <p>E a35==1</p>	<p>MULTI-SELECT a47</p> <p>001 <input type="checkbox"/> Had to turn customers away</p> <p>002 <input type="checkbox"/> Had to send workers home for the day without pay</p> <p>003 <input type="checkbox"/> Had to send workers home for the day with pay</p> <p>004 <input type="checkbox"/> Used more expensive alternate energy sources to run operations/ keep perishables cold</p> <p>005 <input type="checkbox"/> Wasted perishable products/discarded damaged goods</p> <p>006 <input type="checkbox"/> Machines/appliances were damaged in the process</p> <p>007 <input type="checkbox"/> Meetings/transactions were delayed</p> <p>008 <input type="checkbox"/> Stopped operations and waited for power to return</p> <p>009 <input type="checkbox"/> Not affected by typical outages</p> <p>555 <input type="checkbox"/> Other, specify</p>
<p>A47other. Please specify other</p> <p>E a47.Contains(555)</p>	<p>TEXT a47_autre</p> <p>-----</p>
<p>A48. Is there a loss of revenue in a typical month due to power outages? (both scheduled and unscheduled outages)</p> <p>E a35==1</p>	<p>SINGLE-SELECT a48</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

<p>A49. Estimate the loss of revenue in a typical month due to power outages? (both scheduled and unscheduled outages)</p> <p>E a35==1 && a48==1 V1 \$multiple5 M1 Error: This amount does not appear to be in Burundian Franc. Please check. V2 self>=0 M2 Error: This amount cannot be negative. Please correct</p>	<p>NUMERIC: INTEGER a49</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>A50. How much was the extra costs of operating during the outage (e.g. wasted products, paid workers, running a backup generator etc.)?</p> <p>E a35==1 V1 self>=0 M1 Error: This amount cannot be negative. Please correct W2 \$multiple5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER a50</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>A51. If machinery/appliances were damaged because of the grid (national or minigrid), what were the extra costs for fixing/replacing?</p> <p>E a35==1 W1 \$multiple5 M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER a51</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>A52. What are the back-up sources for lighting for the enterprise?</p> <p>I Multiple responses possible. E a35==1 V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot choose "No backup source" with another option. Please check</p>	<p>MULTI-SELECT a52</p> <p>001 <input type="checkbox"/> Electric Generator 002 <input type="checkbox"/> Solar Lantern 003 <input type="checkbox"/> Solar Lighting System 004 <input type="checkbox"/> Solar Home System 006 <input type="checkbox"/> Rechargeable Battery 007 <input type="checkbox"/> Kerosene lamp 008 <input type="checkbox"/> Biogas lamp 009 <input type="checkbox"/> Other fossil-fuel based lighting 010 <input type="checkbox"/> Torch / flashlight 011 <input type="checkbox"/> Mobile phone torch 012 <input type="checkbox"/> Candle 111 <input type="checkbox"/> No backup sources 555 <input type="checkbox"/> Other, specify</p>
<p>A52other. Other, specify</p> <p>E a52.Contains(555)</p>	<p>TEXT a52_autre</p> <p>-----</p>

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD
GENERATEUR

E a29.Contains(3)

<p>VARIABLE a29.Contains(3)</p>	<p>BOOLEAN a53</p>
--------------------------------------	--------------------

STATIC TEXT

Now I'm going to ask you a few questions about the electric generator you use for your business.

<p>A54. Is the MAIN generator for the enterprise the same as the main generator of the household?</p> <p>E a53==true</p>	<p>SINGLE-SELECT a54</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A55. How many generators does your enterprise use?</p> <p>I If multiple generators, ask following questions about main generator.</p> <p>E a54==2</p> <p>V1 self>1</p> <p>M1 There must be at least one generator</p>	<p>NUMERIC: INTEGER A55</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A56. Do you share this generator? with other households or businesses?</p> <p>E a54==2</p>	<p>SINGLE-SELECT a56</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A57. How many households or enterprises share electricity from this generator?</p> <p>E a56==1</p> <p>V1 self>1</p> <p>M1 Error: Must be at least 1 household or business. Please check.</p>	<p>NUMERIC: INTEGER a57</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A58. What is the capacity of this generator in kilovoltamperes (kVA)?</p> <p>I ENUMERATOR: Read name plate of the generator</p> <p>E a54==2</p>	<p>NUMERIC: INTEGER a58</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A59. How many days a month do you usually use this generator?</p> <p>E a54==2</p> <p>V1 self.InRange(1, 31)</p> <p>M1 Error: Must be between 1 and 31 days. Please check.</p>	<p>NUMERIC: INTEGER a59</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A60. How many years have you been using this generator?</p> <p>I Number of years. If less than a year old, record 1.</p> <p>E a54==2</p> <p>V1 self>=0</p> <p>M1 Error: this number cannot be negative. please check</p>	<p>NUMERIC: INTEGER a60</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A61. Does your enterprise own the generator?</p> <p>E a54==2</p>	<p>SINGLE-SELECT a61</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A62. Who owns the generator?</p> <p>E a61==2</p>	<p>SINGLE-SELECT a62</p> <p>001 <input type="radio"/> Other Household</p> <p>002 <input type="radio"/> Community organization</p> <p>003 <input type="radio"/> Other business</p> <p>555 <input type="radio"/> Other, specify</p> <p>888 <input type="radio"/> Don't know</p>
<p>A62other. Please specify other</p> <p>E a62==555</p>	<p>TEXT a62_autre</p> <p>-----</p>

<p>A63. Do you rent or use this generator for free?</p> <p>E a61==2</p>	<p>SINGLE-SELECT a63</p> <p>01 <input type="radio"/> Rent</p> <p>02 <input type="radio"/> Use for free</p>
<p>A64. How do you pay for electricity services from the generator?</p> <p>E a63==1</p>	<p>SINGLE-SELECT a64</p> <p>001 <input type="radio"/> Fixed payment (per month or week)</p> <p>002 <input type="radio"/> Charge by number of lights/appliances</p> <p>003 <input type="radio"/> Charge per hour</p> <p>068 <input type="radio"/> Pay for fuel only</p> <p>555 <input type="radio"/> Other, specify</p>
<p>A64other. Please specify other</p> <p>E a64==555</p>	<p>TEXT a64_autre</p> <p>.....</p>
<p>A65. During the months you use it, how much do you pay for using the generator each month?</p> <p>I Do not include the cost of fuel, only the fee for the use of the generator</p> <p>E a63==1 && a64!=68</p> <p>V1 self>=0</p> <p>M1 Error: this number cannot be negative. please check</p>	<p>NUMERIC: INTEGER a65</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A66. How much did you pay to buy this generator?</p> <p>E a61==1</p> <p>V1 self>=0</p> <p>M1 Error: this number cannot be negative. please check</p> <p>W2 \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER a66</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A67. In the last 12 months, how much have you paid in repair/parts/maintenance costs for the generator?</p> <p>E a61==1 || (a63==1 && a64!=68) || a63==2</p> <p>V1 self>=0</p> <p>M1 Error: this number cannot be negative. please check</p> <p>W2 \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER a67</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A68. What fuel is used to power the generator?</p> <p>E a54==2</p>	<p>SINGLE-SELECT a68</p> <p>001 <input type="radio"/> Diesel</p> <p>002 <input type="radio"/> Gasoline/petrol</p> <p>555 <input type="radio"/> Other, specify</p> <p>888 <input type="radio"/> Don't know</p>
<p>A68other. Please specify other</p> <p>E a68==555</p>	<p>TEXT a68_autre</p> <p>.....</p>
<p>In the last month, what is the total quantity of fuel used to run the generator?</p> <p>I Record amount in litres</p> <p>E a54==2</p>	<p>NUMERIC: DECIMAL a69</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>A70. Do you pay for the fuel used to power the generator?</p> <p>E a54==2 && a64!=68</p>	<p>SINGLE-SELECT a70</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>In the last month, how much did your enterprise spend on fuel for this generator?</p> <p>E a54==2 || a70==1</p> <p>W1 \$multiple5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error: this number cannot be negative. please check</p>	<p>NUMERIC: INTEGER a71</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>A72. In the last 12 months, did any of your appliances get damaged because the voltage was going up and down from the generator?</p> <p>E a54==2</p>	<p>SINGLE-SELECT a72</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> No</p> <p>888 <input type="radio"/> Don't know</p>
<p>VARIABLE</p> <p>IsAnswered(a29)? a29.ContainsAny(4,5,6): true</p>	<p>BOOLEAN a73</p>

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD
SOLAR LANTERN

E a29.Contains(4)

<p>A74a. How many solar lantern does your enterprise use? (Only for the company)</p>	<p>SINGLE-SELECT a74a</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A75a. How many solar lantern does your enterprise use? (Only for the company)</p> <p>E a74a==2</p> <p>V1 self>=1</p> <p>M1 Error: The minimum number must be 1. Please correct</p>	<p>NUMERIC: INTEGER a75a</p> <p>-----</p>
<p>A76a. How many solar lantern does your enterprise use? (Only for the company)</p> <p>I ENUMERATOR: if the answer is in years, convert to months</p> <p>E a74a==2</p> <p>V1 self>0</p> <p>M1 Error: Must be greater than 0.</p>	<p>NUMERIC: INTEGER a76a</p> <p>-----</p>
<p>A77a. What is the solar lantern used for?</p> <p>I Multiple responses possible.</p> <p>E a74a==2</p>	<p>MULTI-SELECT a77a</p> <p>001 <input type="checkbox"/> Lighting</p> <p>002 <input type="checkbox"/> Cell phone charging – for the enterprise</p> <p>003 <input type="checkbox"/> Cell phone charging – as a charging station</p> <p>004 <input type="checkbox"/> Operating laptop/computer/tablet</p> <p>005 <input type="checkbox"/> Operate photocopy machine/scanner</p> <p>006 <input type="checkbox"/> Providing entertainment (e.g. playing movies)</p> <p>007 <input type="checkbox"/> Refrigeration</p> <p>008 <input type="checkbox"/> Power television/DVD/Audio</p> <p>555 <input type="checkbox"/> Other</p>

<p>A77b_oth.Please specify other</p> <p>E a77a.Contains(555)</p>	<p>TEXT</p> <p>a77aautre</p> <p>.....</p>
--	---

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD
SOLAR LIGHTING SYSTEM

E a29.Contains(5)

<p>A74b. Is the solar lighting system that the enterprise uses the same as the one used by the household?</p>	<p>SINGLE-SELECT</p> <p>a74b</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>A75b. How many solar lighting systems does the enterprise use? (Only the enterprise)</p> <p>E a74b==2</p> <p>V1 self>=1</p> <p>M1 Error: The minimum number must be 1. Please correct</p>	<p>NUMERIC: INTEGER</p> <p>a75b</p> <p>-----</p>
<p>A76b. How many months has your company been using the solar lighting system?</p> <p>I ENUMERATOR: if the answer is in years, convert to months</p> <p>E a74b==2</p> <p>V1 self>0</p> <p>M1 Error: Must be greater than 0.</p>	<p>NUMERIC: INTEGER</p> <p>a76b</p> <p>-----</p>
<p>A77b. What is the solar lighting system used for?</p> <p>I Multiple responses possible.</p> <p>E a74b==2</p>	<p>MULTI-SELECT</p> <p>a77b</p> <p>001 <input type="checkbox"/> Lighting</p> <p>002 <input type="checkbox"/> Cell phone charging – for the enterprise</p> <p>003 <input type="checkbox"/> Cell phone charging – as a charging station</p> <p>004 <input type="checkbox"/> Operating laptop/computer/tablet</p> <p>005 <input type="checkbox"/> Operate photocopy machine/scanner</p> <p>006 <input type="checkbox"/> Providing entertainment (e.g. playing movies)</p> <p>007 <input type="checkbox"/> Refrigeration</p> <p>008 <input type="checkbox"/> Power television/DVD/Audio</p> <p>555 <input type="checkbox"/> Other</p>
<p>A77b_oth. Please specify "Other"</p> <p>E a77b.Contains(555)</p>	<p>TEXT</p> <p>a77bautre</p> <p>.....</p>

A2. ACTIVITY/BUSINESS OWNED BY HOUSEHOLD
SOLAR HOME SYSTEM

E a29.Contains(6)

<p>A74c. Is the solar home system the enterprise uses the same as the one used by the household?</p>	<p>SINGLE-SELECT</p> <p>a74c</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
---	--

A75c. How many solar home systems does the enterprise use? (Only the enterprise)

NUMERIC: INTEGER

a75c

E a74b==2

V1 self>=1

M1 Error: The minimum number must be 1. Please correct

A76c. How many months has your company been using the solar home system ?

NUMERIC: INTEGER

a76c

I ENUMERATOR: if the answer is in year, convert to month

E a74c==2

V1 self>0

M1 Error: Must be greater than 0.

A77c. What is the solar home system used for?

MULTI-SELECT

a77c

I Multiple responses possible.

E a74b==2

- 001 Lighting
- 002 Cell phone charging - for the enterprise
- 003 Cell phone charging - as a charging station
- 004 Operating laptop/computer/tablet
- 005 Operate photocopy machine/scanner
- 006 Providing entertainment (e.g. playing movies)
- 007 Refrigeration
- 008 Power television/DVD/Audio
- 555 Other

A77c_oth.Please specify "Other"

TEXT

a77cautre

E a77c.contains(555)

B. HOUSEHOLD CHARACTERISTICS

E cons==1 && a1.Length>=1

<p>B1. Respondent for this section</p> <p>F \$minAgeHH W1 membre_details.Count(x=>x.a4==1)==1 M1 Interviewer Instructions: The Respondent should be the head of household.</p>	<p>SINGLE-SELECT: LINKED b01</p>
<p>B2. How many years have you been living in this community?</p> <p>I ENUMERATOR: Record 1 if less than 1 year. V1 self>=1 M1 Error: Must be greater than or equal to 1.</p>	<p>NUMERIC: INTEGER b02</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>B3. What is the type of dwelling?</p> <p>I ENUMERATOR, check with observation</p>	<p>SINGLE-SELECT b03</p> <p>01 <input type="radio"/> Detached house 02 <input type="radio"/> Multi-family house 03 <input type="radio"/> Separate apartment 04 <input type="radio"/> Communal apartment 05 <input type="radio"/> Room in a larger dwelling 06 <input type="radio"/> Several buildings connected 07 <input type="radio"/> Several separate buildings 08 <input type="radio"/> Improvised housing unit 96 <input type="radio"/> Other, Specify</p>
<p>B03_oth. Please specify "Other".</p> <p>E b03==96</p>	<p>TEXT b03_autre</p> <p>-----</p>
<p>B4. Does more than one household occupy this dwelling?</p> <p>V1 self>0 M1 Error: Must be at least 1</p>	<p>NUMERIC: INTEGER b04</p> <p>-----</p>
<p>B5. Do you own this dwelling?</p>	<p>SINGLE-SELECT b05</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>B6 .Do you use it for free or rent it?</p> <p>E b05==2</p>	<p>SINGLE-SELECT b06</p> <p>01 <input type="radio"/> Free 02 <input type="radio"/> Rented</p>
<p>B7. How many rooms (excluding the kitchen, toilet, and bathroom) does the household occupy?</p>	<p>NUMERIC: INTEGER b07</p> <p>-----</p>

<p>B8. The walls of the dwelling are mainly made of what material?</p> <p>I ENUMERATOR: Check with observation</p>	<p>SINGLE-SELECT b08</p> <p>01 <input type="radio"/> Wood and mud</p> <p>02 <input type="radio"/> Wood and thatch</p> <p>03 <input type="radio"/> Wood only</p> <p>04 <input type="radio"/> Stone only</p> <p>05 <input type="radio"/> Stone and mud</p> <p>06 <input type="radio"/> Stone and cement</p> <p>07 <input type="radio"/> Blocks, plastered with cement</p> <p>08 <input type="radio"/> Blocks, unplastered</p> <p>09 <input type="radio"/> Bricks</p> <p>10 <input type="radio"/> Mud bricks (traditional)</p> <p>11 <input type="radio"/> Steel</p> <p>12 <input type="radio"/> Cargo container</p> <p>13 <input type="radio"/> Parquet or polished wood</p> <p>14 <input type="radio"/> Chip wood</p> <p>15 <input type="radio"/> Corrugated iron sheet</p> <p>16 <input type="radio"/> Asbestos</p> <p>And 3 other symbols [6]</p>
<p>B08_oth. Please specify "Other".</p> <p>E b08==96</p>	<p>TEXT b08_autre</p> <p>.....</p>
<p>B9. The roof of the dwelling is mainly made of what material?</p> <p>I ENUMERATOR: Check with observation</p>	<p>SINGLE-SELECT b09</p> <p>01 <input type="radio"/> Wood and mud</p> <p>02 <input type="radio"/> Wood and thatch</p> <p>03 <input type="radio"/> Stone and Cement</p> <p>04 <input type="radio"/> Bricks</p> <p>05 <input type="radio"/> Corrugated iron sheet</p> <p>06 <input type="radio"/> Asbestos</p> <p>07 <input type="radio"/> Reed/bamboo</p> <p>08 <input type="radio"/> Plastic/ canvas</p> <p>96 <input type="radio"/> Other, specify</p>
<p>B09_oth. Please specify "Other".</p> <p>E b09==96</p>	<p>TEXT b09_autre</p> <p>.....</p>
<p>B10. The floor of the dwelling is mainly made of what material?</p> <p>I ENUMERATOR: Check with observation</p>	<p>SINGLE-SELECT b10</p> <p>01 <input type="radio"/> Mud/Dung</p> <p>02 <input type="radio"/> Reed/bamboo</p> <p>03 <input type="radio"/> Wood planks</p> <p>04 <input type="radio"/> Parquet or polished wood</p> <p>05 <input type="radio"/> Cement screed</p> <p>06 <input type="radio"/> Plastic tiles</p> <p>07 <input type="radio"/> Cement tiles</p> <p>08 <input type="radio"/> Brick tiles</p> <p>09 <input type="radio"/> Ceramic/Marble tiles</p> <p>10 <input type="radio"/> Sand</p> <p>96 <input type="radio"/> Other, specify</p>
<p>B10_oth. Please specify "Other".</p> <p>E b10==96</p>	<p>TEXT b10_autre</p> <p>.....</p>

<p>B11 What type of toilet facility does your household use?</p> <p>I Multiple responses possible.</p>	<p>MULTI-SELECT b11</p> <p>01 <input type="checkbox"/> None (open field)</p> <p>02 <input type="checkbox"/> Flush to sewage</p> <p>03 <input type="checkbox"/> Flush to septic tank</p> <p>04 <input type="checkbox"/> Pail/Bucket</p> <p>05 <input type="checkbox"/> Covered pit latrine</p> <p>06 <input type="checkbox"/> Uncovered pit latrine</p> <p>07 <input type="checkbox"/> Community latrine</p> <p>96 <input type="checkbox"/> Other, specify</p>
<p>B11_oth. Please specify "Other".</p> <p>E b11.Contains(96)</p>	<p>TEXT b11_autre</p> <p>.....</p>
<p>B12. What is your household's main source of drinking water?</p>	<p>SINGLE-SELECT b12</p> <p>01 <input type="radio"/> Piped water</p> <p>02 <input type="radio"/> Bore hole / hand pump</p> <p>03 <input type="radio"/> Borehole / electric water pump</p> <p>04 <input type="radio"/> Well (protected)</p> <p>05 <input type="radio"/> Well (unprotected)</p> <p>06 <input type="radio"/> Spring (protected)</p> <p>07 <input type="radio"/> Spring (unprotected)</p> <p>08 <input type="radio"/> River</p> <p>09 <input type="radio"/> Lake/reservoir</p> <p>10 <input type="radio"/> Rainwater</p> <p>11 <input type="radio"/> Tanker/truck/vendor</p> <p>12 <input type="radio"/> Sachet water</p> <p>13 <input type="radio"/> Bottle water</p> <p>96 <input type="radio"/> Other, specify</p>
<p>B12_oth. Please specify "Other".</p> <p>E b12==96</p>	<p>TEXT b12_autre</p> <p>.....</p>
<p>B13. Is your drinking water treated (chemical treatment)?</p>	<p>SINGLE-SELECT b13</p> <p>01 <input type="radio"/> Yes</p> <p>00 <input type="radio"/> No</p> <p>08 <input type="radio"/> Don't know</p>
<p>B14. At which FORMAL institution do members of this household have an account or savings?</p> <p>I ENUMERATOR: Read options aloud. Multiple responses.</p> <p>V1 self.ContainsOnly(4) || !self.Contains(4)</p> <p>M1 Error: Cannot select "no one" with any other option.</p>	<p>MULTI-SELECT b14</p> <p>01 <input type="checkbox"/> Commercial bank</p> <p>02 <input type="checkbox"/> Cooperative credit union</p> <p>03 <input type="checkbox"/> Microfinance institution</p> <p>04 <input type="checkbox"/> No one in the household holds an account or savings with a formal institution</p> <p>96 <input type="checkbox"/> Other, specify</p>
<p>B14_oth. Please specify "Other".</p> <p>E b14.Contains(96)</p>	<p>TEXT b14_autre</p> <p>.....</p>

<p>B15. At which INFORMAL institution do members of this household have an account or savings?</p> <p>I ENUMERATOR: Read options aloud. Multiple responses. V1 self.ContainsOnly(3) || !self.Contains(3) M1 Error: Cannot select "no one" with any other option.</p>	<p>MULTI-SELECT b15</p> <p>01 <input type="checkbox"/> Group savings (rotational)</p> <p>02 <input type="checkbox"/> Group savings (one-time disbursement)</p> <p>03 <input type="checkbox"/> No one in the households holds an account or savings with an informal institution</p> <p>96 <input type="checkbox"/> Other, specify</p>
<p>B15_oth. Please specify "Other".</p> <p>E b15.Contains(96)</p>	<p>TEXT b15_autre</p> <p>.....</p>
<p>B16. If you can get a loan/credit, what are the sources of credit/loans?</p> <p>I Multiple responses possible. V1 self.ContainsOnly(14) || !self.Contains(14) M1 Error: Cannot select "cannot get loan" with any other option.</p>	<p>MULTI-SELECT b16</p> <p>001 <input type="checkbox"/> Commercial/government bank</p> <p>002 <input type="checkbox"/> Cooperative credit union</p> <p>003 <input type="checkbox"/> Microfinance institution</p> <p>004 <input type="checkbox"/> Rural bank</p> <p>005 <input type="checkbox"/> State loan</p> <p>006 <input type="checkbox"/> NGO</p> <p>007 <input type="checkbox"/> Business firm</p> <p>008 <input type="checkbox"/> Employer</p> <p>009 <input type="checkbox"/> SACCO</p> <p>010 <input type="checkbox"/> Private Moneylender</p> <p>011 <input type="checkbox"/> Shop</p> <p>012 <input type="checkbox"/> Relative/friend/neighbor</p> <p>013 <input type="checkbox"/> Mobile money services</p> <p>014 <input type="checkbox"/> Cannot get a loan/credit</p> <p>555 <input type="checkbox"/> Other, specify</p>
<p>B16_oth. Please specify "Other".</p> <p>E b16.Contains(555)</p>	<p>TEXT b16_autre</p> <p>.....</p>
<p>B17. Do you have a mobile money account?</p>	<p>SINGLE-SELECT b17</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>B18. Do you use the mobile money account to make payments by mobile phone?</p> <p>E b17==1</p>	<p>SINGLE-SELECT b18</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>B19. Have you used the account in the past 90 days?</p> <p>E b17==1</p>	<p>SINGLE-SELECT b19</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

B.20 How do you use the mobile money services?

I Mark all that apply
E b19==1

MULTI-SELECT

b20

- 01 Receive money from family/friends/other
- 02 Transfer credit to family/relatives
- 03 Top up credit
- 04 Receive NGO/State support
- 05 Pay for Electricity
- 06 Pay for Water
- 07 Internet top-up/credit
- 08 Commercial purchases
- 09 Insurance
- 10 Loan payments
- 11 Savings
- 96 Other, specify

B20_oth. Please specify "Other".

E b20.Contains(96)

TEXT

b20_autre

.....

C. SUPPLY AND DEMAND OF ELECTRICITY

E cons==1 && a1.Length>=1

C0. Respondant	SINGLE-SELECT: LINKED	c0
<p>I Instructions: This module should be completed by the most knowledgeable member on household electricity. Concorted answers should be allowed.</p> <p>F \$minAgeHH</p>		
<p>C. SUPPLY AND DEMAND OF ELECTRICITY NATIONAL GRID REGIDESO</p>		
C.2 Is the household connected to the national grid?	<p>SINGLE-SELECT</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>	c2
C.3 What is the MAIN reason why your household is not connected to the grid?	<p>SINGLE-SELECT</p> <p>001 <input type="radio"/> Grid is too far from household/not available</p> <p>002 <input type="radio"/> Cost of initial connection is too expensive</p> <p>003 <input type="radio"/> Monthly fee is too expensive</p> <p>004 <input type="radio"/> Satisfied with current energy solution</p> <p>005 <input type="radio"/> Renting, Landlord decision</p> <p>006 <input type="radio"/> Service unreliable</p> <p>007 <input type="radio"/> Administrative procedure is too complicated</p> <p>008 <input type="radio"/> Submitted application and waiting for connection</p> <p>009 <input type="radio"/> Company refused to connect the household</p> <p>555 <input type="radio"/> Other, specify</p>	c3
<p>I ENUMERATOR: Record the MAIN reason.</p> <p>E // pas connecté au réseau c2 == 2</p>		
C3_oth. Please specify other	TEXT	c3autre
E c3 == 555	-----	
C.4 Do you expect to get grid connection?	<p>SINGLE-SELECT</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> Don't expect to get grid connection</p> <p>888 <input type="radio"/> Don't know</p>	c4
E c2 == 2		
C.5 How long do you think it will take to get a grid connection?	<p>SINGLE-SELECT</p> <p>01 <input type="radio"/> Up to 6 months</p> <p>02 <input type="radio"/> 6 months to 1 year</p> <p>03 <input type="radio"/> 1 year to 2 years</p> <p>04 <input type="radio"/> More than 2 years</p> <p>08 <input type="radio"/> Don't know</p>	c5
E c2 == 2 && !c4.InList(2,888)		

<p>C.6 How many years have you had this grid connection for?</p> <p>I Record in years, if less than a year, record 1. ENUMERATOR: if the respondent gives the year of connection to the network convert to number of years</p> <p>E c2 == 1</p> <p>V1 self.InRange(1,67) //Ou Ne sait pas || self==888</p> <p>M1 Error: should be less than number of years living in community (see B6)</p> <p>V2 self<=b02</p> <p>M2 Error! Cannot be greater than %b02%. Please check</p>	<p>NUMERIC: INTEGER c6</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C7. How much (in FBu) did your household pay for the network connection?</p> <p>I Refer to connection fee ONLY.</p> <p>E c2 == 1</p> <p>V1 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5 //Ou Ménage était déjà connecté || self==111</p> <p>M1 Error</p> <p>V2 self>=0</p> <p>M2 Error: Cannot be negative</p>	<p>NUMERIC: INTEGER c7</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p> <p>111 Household was already connected</p>
<p>C.8 How is your household internally connected to the grid?</p> <p>I ENUMERATOR: If necessary, show the respondent a photo of a ready board and internal wiring.</p> <p>E c2 == 1 && c7 != 111</p>	<p>SINGLE-SELECT c8</p> <p>01 <input type="radio"/> Ready-board</p> <p>02 <input type="radio"/> Internal wiring</p> <p>03 <input type="radio"/> Both</p>
<p>C.9 How much did your household pay for the internal wiring fee and/or ready-board?</p> <p>I Do not include here the connection costs of C.7</p> <p>E c2 == 1 && c7 != 111</p> <p>V1 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5 //Ou Ne sait pas || self==888</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error: Must be positive or zero.</p>	<p>NUMERIC: INTEGER c9</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C.10 How many days after you applied for the grid connection did your household get connected?</p> <p>I Enumerator: if response is less than 1 week, record 0.</p> <p>E c2 == 1 && c7 != 111</p> <p>V1 self>=0</p> <p>M1 Error: Must be positive or zero.</p>	<p>NUMERIC: INTEGER c10</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C.11 How many weeks after you were connected were you able to use electricity in your home?</p> <p>I Enumerator: if response is less than 1 week, record 0.</p> <p>E c2 == 1 && c7 != 111</p> <p>V1 self>=0</p> <p>M1 Error</p>	<p>NUMERIC: INTEGER c11</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>C.12 Who receives the payment for your electricity service?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c12</p> <p>001 <input type="radio"/> Electricity company (REGIDESO)</p> <p>002 <input type="radio"/> Pre-paid meter card seller</p> <p>003 <input type="radio"/> Community/village/municipality</p> <p>004 <input type="radio"/> Relative</p> <p>005 <input type="radio"/> Neighbor</p> <p>006 <input type="radio"/> Landlord</p> <p>007 <input type="radio"/> Local store</p> <p>008 <input type="radio"/> Bank</p> <p>009 <input type="radio"/> Post office</p> <p>111 <input type="radio"/> No one</p> <p>096 <input type="radio"/> Other, specify</p>
<p>C12_oth.Please specify other</p> <p>E c12==96</p>	<p>TEXT c12autre</p> <p>.....</p>
<p>C.13 How frequently do you make your payment?</p> <p>E c2 == 1 && // fait des paiements -- toute réponse sauf " personne" c12!=111</p>	<p>SINGLE-SELECT c13</p> <p>01 <input type="radio"/> Weekly</p> <p>02 <input type="radio"/> Bi-weekly</p> <p>03 <input type="radio"/> Monthly</p> <p>04 <input type="radio"/> Every 6 months</p> <p>96 <input type="radio"/> Other, specify</p>
<p>C13_oth. Please specify other</p> <p>E c13==96</p>	<p>TEXT c13autre</p> <p>.....</p>
<p>C.14 Does your dwelling have an electric meter?</p> <p>E c2 == 1 && c12!=111</p>	<p>SINGLE-SELECT c14</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.15 Is this a pre-paid meter?</p> <p>E c14==1</p>	<p>SINGLE-SELECT c15</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.16 Does your household share the electric meter?</p> <p>E c14==1</p>	<p>SINGLE-SELECT c16</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.17 How many households are sharing the meter?</p> <p>E c16==1</p> <p>V1 self>=1</p> <p>M1 Error: Must be greater than or equal to 1.</p>	<p>NUMERIC: INTEGER c17</p> <p>.....</p>
<p>C.18 How are you billed for electricity?</p> <p>I Read options aloud</p> <p>E c2 == 1 && c12!=111</p>	<p>SINGLE-SELECT c18</p> <p>001 <input type="radio"/> kWh based on the meter reading (post-payment)</p> <p>005 <input type="radio"/> kWh with prepayment meter</p> <p>002 <input type="radio"/> Fixed monthly fee</p> <p>003 <input type="radio"/> Pay based on lights and appliances used</p> <p>004 <input type="radio"/> Utility estimates consumption</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> No bill for electricity</p>

<p>C18_oth. Please specify "Other"</p> <p>E c18 == 555</p>	<p>TEXT c18autre</p> <p>.....</p>
<p>C.19 How do you pay for your electricity usage most of the time?</p> <p>E c2 == 1 && c12!=111 && c18!=111</p>	<p>SINGLE-SELECT c19</p> <p>001 <input type="radio"/> Cash</p> <p>002 <input type="radio"/> Credits using mobile money</p> <p>096 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> Doesn't pay for electricity</p>
<p>C19_oth. Please specify "Other"</p> <p>E c19 == 96</p>	<p>TEXT c19autre</p> <p>.....</p>
<p>C.20 Enumerator: If the respondent pays the energy company or has a record of the electricity payment, ask to see the latest available electricity bill/invoice and use it for C.21 to C.24 .</p> <p>E c2 == 1 && c12!=111 && // et paie l'électricité c19!=111</p>	<p>SINGLE-SELECT c20</p> <p>01 <input type="radio"/> Respondent has energy bill and shows it</p> <p>02 <input type="radio"/> Respondent has energy bill but refuses to show it or could not locate it</p> <p>03 <input type="radio"/> Respondent does not have an energy bill</p>
<p>C.21 Is the last bill charged monthly?</p> <p>I Monthly invoice covers one month (about 30 days)</p> <p>E c20==1</p>	<p>SINGLE-SELECT c21</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.22 How many days does the last bill cover?</p> <p>E c12!=111 && // et paie l'électricité c19!=111 && // et accepte de montrer sa facture c20 == 1 && // mais ne paie pas la facture au mois c21 == 2</p> <p>V1 self>=1</p> <p>M1 Error: Must be greater than or equal to 1.</p>	<p>NUMERIC: INTEGER c22</p> <p>-----</p>
<p>C.23 In the last bill (or pre-pay invoice/recharge, how much did you spend on electricity?</p> <p>I ENUMERATOR: See the amount on the last invoice</p> <p>E // fait des paiements -- toute réponse sauf "personne" c12!=111 && // et paie l'électricité c19!=111 && // et accepte de montrer sa facture c20 == 1</p> <p>V1 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5 //Ou Ne sait pas || self==888</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>0</p> <p>M2 Error: Must be greater than 0.</p>	<p>NUMERIC: INTEGER c23</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C24. How much electricity in kilowatt hours (kWh) has your household consumed?</p> <p>I ENUMERATOR: See the amount on the last invoice</p> <p>E // fait des paiements -- toute réponse sauf "personne" c12!=111 && // et paie l'électricité c19!=111 && // et accepte de montrer sa facture c20 == 1</p> <p>V1 self>0</p> <p>M1 Error: Must be greater than 0.</p>	<p>NUMERIC: INTEGER c24</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>C25. In a typical month, how much (in FBu) do you spend on electricity?</p> <p>E c2 == 1 && // fait des paiements -- toute réponse sauf " personne" c12!=111 && // et paie l'électricité c19!=111</p> <p>V1 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5 //Ou Ne sait pas || self==888</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>0</p> <p>M2 Error: Must be greater than 0.</p>	<p>NUMERIC: INTEGER c25</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C.26 Do you receive information about a "load-shedding" schedule (load shedding is the set hours of electricity officially NOT available from the grid or scheduled outages)?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c26</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.27 How many hours of electricity are available each day and night from the grid?</p> <p>I 24 heures maximum</p> <p>E c2 == 1</p> <p>V1 self.InRange(0,24) //Ou Ne sait pas || self==888</p> <p>M1 Error: Number between 0 and 24</p>	<p>NUMERIC: INTEGER c27</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C.28 How many hours of electricity are available each evening, from 6:00 pm to 10:00 pm from the grid?</p> <p>I Maximum 4 hours</p> <p>E c2 == 1</p> <p>V1 self.InRange(0,4) //Ou Ne sait pas || self==888</p> <p>M1 Error: Number between 0 and 4</p>	<p>NUMERIC: INTEGER c28</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C.29 How many unscheduled outages/blackouts occur in a typical week?</p> <p>E c2 == 1</p> <p>V1 self>=1</p> <p>M1 Error: Must be greater than or equal to 1. If 0 , select "No blackouts".</p>	<p>NUMERIC: INTEGER c29</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>111 No blackouts</p> <p>098 Don't know</p>
<p>STATIC TEXT</p> <p>E c2 == 1 && c29 != 111</p> <p><i>C.30 What is the total duration of all the unscheduled outages/blackouts in a typical week?</i></p>	
<p>C30A. HOURS</p> <p>E c2 == 1 && IsAnswered(c29) && c29 != 111</p>	<p>NUMERIC: INTEGER c30a</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C30B. MINUTES</p> <p>E c2 == 1 && IsAnswered(c29) && c29 != 111 && // durée en heure connue c30a != 888</p> <p>V1 self.InRange(0,59)</p> <p>M1 Error: The number of minutes should be 1 and 59. If 60 min and more, it is necessary to convert to hour.</p>	<p>NUMERIC: INTEGER c30b</p> <p>-----</p>

<p>C31. What is your main source of lighting during outages/blackouts of the grid (both scheduled and unscheduled)?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c31</p> <p>001 <input type="radio"/> Mini-grid</p> <p>002 <input type="radio"/> Electric Generator</p> <p>003 <input type="radio"/> Solar Lantern</p> <p>004 <input type="radio"/> Solar Lighting System</p> <p>005 <input type="radio"/> Solar Home System</p> <p>006 <input type="radio"/> Rechargeable Battery</p> <p>007 <input type="radio"/> Kerosene lamp</p> <p>008 <input type="radio"/> Biogas based lamps</p> <p>009 <input type="radio"/> Other fossil-fuel based lighting</p> <p>010 <input type="radio"/> Candle</p> <p>011 <input type="radio"/> Dry-cell batteries</p> <p>013 <input type="radio"/> Pico-hydro</p> <p>111 <input type="radio"/> No backup sources</p> <p>555 <input type="radio"/> Other, specify</p>
<p>C31_oth. Please specify "Other"</p> <p>E c31 == 555</p>	<p>TEXT c31autre</p> <p>.....</p>
<p>C32. What is your main source of backup electricity for devices (including charging mobile phones) during outages/blackouts (both scheduled and unscheduled)?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c32</p> <p>001 <input type="radio"/> Mini-grid</p> <p>002 <input type="radio"/> Electric Generator</p> <p>003 <input type="radio"/> Solar Lantern</p> <p>004 <input type="radio"/> Solar Lighting System</p> <p>005 <input type="radio"/> Solar Home System</p> <p>006 <input type="radio"/> Rechargeable battery (e.g.: car battery)</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> No back-up source</p>
<p>C32_oth. Please specify "Other"</p> <p>E c32 == 555</p>	<p>TEXT c32autre</p> <p>.....</p>
<p>C.33 The last time you asked for assistance in a power failure, how many days after you contacted the power company did they come to fix the problem?</p> <p>I Enumerator: Response under 24 hours should be recorded as 0</p> <p>E c2 == 1</p>	<p>NUMERIC: INTEGER c33</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>111 No one to ask for assistance in power company</p> <p>888 Don't know</p>
<p>C.34 In the last 12 months, did any of your appliances get damaged because the voltage from the grid was going up and down?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c34</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>

<p>C.35 What are the most serious problems you experience with your grid electricity?</p> <p>I Select up to 2 answers E c2 == 1 V1 self.Contains(111)? self.Length==1: true M1 Error: Cannot select "No problems" with other options.</p>	<p>MULTI-SELECT: ORDERED c35</p> <p>001 <input type="checkbox"/> Supply shortage/not enough hours of electricity</p> <p>002 <input type="checkbox"/> Low/high voltage problems or voltage fluctuations</p> <p>003 <input type="checkbox"/> Unpredictable interruptions</p> <p>004 <input type="checkbox"/> Unexpectedly high bills</p> <p>005 <input type="checkbox"/> High cost of electricity</p> <p>006 <input type="checkbox"/> Do not trust the supplier</p> <p>007 <input type="checkbox"/> Cannot power large appliances</p> <p>008 <input type="checkbox"/> Maintenance/service problems</p> <p>009 <input type="checkbox"/> Unpredictable bills</p> <p>555 <input type="checkbox"/> Other, specify</p> <p>111 <input type="checkbox"/> No problems</p>
<p>C35_oth. Please specify "Other"</p> <p>E c35.Contains(555)</p>	<p>TEXT c35autre</p> <p>.....</p>
<p>C36. Is your electric wiring adequately (or appropriately) insulated?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c36</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C37. In the last 12 months, did any household members die or have permanent limb (bodily injury) damage because of the grid electricity?</p> <p>E c2 == 1</p>	<p>SINGLE-SELECT c37</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C38. Was this injury due to faulty wiring/connection?</p> <p>E c2 == 1 && c37==1</p>	<p>SINGLE-SELECT c38</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>

**C. SUPPLY AND DEMAND OF ELECTRICITY
MINI GRID**

<p>C39. Is the household connected to a mini-grid?</p>	<p>SINGLE-SELECT c39</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C40. What is the name of the mini-grid company?</p> <p>I Record the name of the company that operates the mini grid E c39==1</p>	<p>TEXT c40</p> <p>.....</p>
<p>C41. Are you able to power all your appliances with the mini grid?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c41</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>C42. How many years have you had this mini-grid connection?</p> <p>I ENUMERATOR: If less than 1 year, record 1. E c39==1 V1 self.InRange(1, b02) M1 Error: Must be greater than or equal to 1, and must be less than or equal to B2.</p>	<p>NUMERIC: INTEGER c42</p> <p>-----</p>

<p>C43. How much (in FBu) did your household pay for the mini-grid connection ?</p> <p>I Refer to connection cost ONLY. E c39==1</p> <p>V1 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5 || self==111 //Ou Ne sait pas || self==98</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check. V2 self>=0</p> <p>M2 Error: Must be greater than or equal to 0.</p>	<p>NUMERIC: INTEGER c43</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>098 Don't know</p> <p>111 House was already connected</p>
<p>C44. How is your household internally connected to the mini-grid?</p> <p>I ENUMERATOR If necessary, show the respondent a photo of a pre-wired board and internal wiring. E c39==1</p>	<p>SINGLE-SELECT c44</p> <p>01 <input type="radio"/> Ready-board</p> <p>02 <input type="radio"/> Internal wiring</p> <p>03 <input type="radio"/> Both</p>
<p>C45. How much did your household pay for the internal wiring and/or ready board?</p> <p>I Do not include C.43's connection fee here E c39==1 && c43!=111</p> <p>V1 self>=0</p> <p>M1 Error: Amount cannot be negative. Please correct V2 \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER c45</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>98 Don't know</p>
<p>C46. How many days after you applied for the mini-grid connection did your household get connected?</p> <p>I Insert 0 if less than 24 hours E c39==1 && c43!=111</p>	<p>NUMERIC: INTEGER c46</p> <p>-----</p>
<p>C47. How many weeks after you were connected were you able to use electricity in your home?</p> <p>I Insert 0 if less than a week E c39==1 && c43!=111</p>	<p>NUMERIC: INTEGER c47</p> <p>-----</p>
<p>C48. Have you applied for an upgrade of service since you connected to the mini-grid?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c48</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C49. Who receives the payment for your electricity service?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c49</p> <p>001 <input type="radio"/> Electricity company</p> <p>002 <input type="radio"/> Pre-paid meter card seller</p> <p>003 <input type="radio"/> Community/village/municipality</p> <p>004 <input type="radio"/> Relative</p> <p>005 <input type="radio"/> Neighbor</p> <p>006 <input type="radio"/> Landlord</p> <p>555 <input type="radio"/> Other, specify</p>
<p>C49_oth. Please specify other</p> <p>E c49==555</p>	<p>TEXT c49autre</p> <p>-----</p>
<p>C50. Does your dwelling have an electric meter?</p> <p>E c39==1 && c49!=6</p>	<p>SINGLE-SELECT c50</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

<p>C51. Is this a pre-paid meter?</p> <p>E c39==1 && c50==1</p>	<p>SINGLE-SELECT c51</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C52. Does your household share the electric meter?</p> <p>E c39==1 && c50==1</p>	<p>SINGLE-SELECT c52</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C53. How many households are sharing the meter?</p> <p>E c39==1 && c52==1</p> <p>V1 se1f>1</p> <p>M1 Error: There must be at least 2 households. Please review.</p>	<p>NUMERIC: INTEGER c53</p> <p>-----</p>
<p>C54. How are you billed for electricity?</p> <p>I Read options aloud</p> <p>E c39==1 && c49!=6</p>	<p>SINGLE-SELECT c54</p> <p>001 <input type="radio"/> kWh based on the meter reading (post-payment)</p> <p>002 <input type="radio"/> kWh with prepayment meter</p> <p>003 <input type="radio"/> Fixed monthly fee</p> <p>004 <input type="radio"/> Pay based on lights and appliances used</p> <p>005 <input type="radio"/> Utility estimates consumption</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> No bill for electricity</p>
<p>C54_oth. Please specify "Other"</p> <p>E c54==555</p>	<p>TEXT c54autre</p> <p>-----</p>
<p>C55. How do you pay for your electricity usage most of the time?</p> <p>E c39==1 && c49!=6 && c54!=111</p>	<p>SINGLE-SELECT c55</p> <p>001 <input type="radio"/> Cash</p> <p>002 <input type="radio"/> Credits using mobile money</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> Doesn't pay for electricity</p>
<p>C55_oth. Please specify other</p> <p>E c55==555</p>	<p>TEXT c55autre</p> <p>-----</p>
<p>C56. Were you involved in setting the tariff for the mini-grid?</p> <p>E c39==1 && c49!=6 && c54!=111</p>	<p>SINGLE-SELECT c56</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C57. How were you involved in the tariff setting?</p> <p>I Multiple responses possible.</p> <p>E c39==1 && c56==1</p>	<p>MULTI-SELECT c57</p> <p>001 <input type="checkbox"/> Community meeting</p> <p>002 <input type="checkbox"/> Contacted by mini-grid company</p> <p>003 <input type="checkbox"/> As a member of electricity committee</p> <p>004 <input type="checkbox"/> As a member of cooperative</p> <p>555 <input type="checkbox"/> Other, specify</p>
<p>C57_oth. Please specify "Other"</p> <p>E c57.Contains(555)</p>	<p>TEXT c57autre</p> <p>-----</p>

<p>C58. Enumerator: If the respondent pays the energy company or has a record of the electricity payment, ask to see the latest available electricity bill/invoice and use it for C.61 and C.62.</p>	<p>SINGLE-SELECT c58</p> <p>01 <input type="radio"/> Respondent has energy bill and shows it</p> <p>02 <input type="radio"/> Respondent has energy bill but refuses to show it or could not locate it</p> <p>03 <input type="radio"/> Respondent does not have an energy bill</p>
<p>E c39==1 && c49!=6 && c54!=111</p>	
<p>C59. Is the last bill charged monthly?</p>	<p>SINGLE-SELECT c59</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>E c39==1 && c49!=6 && c54!=111 && c58==1</p>	
<p>C60. How many days does the last bill (or pre-paid invoice/recharge) cover?</p>	<p>NUMERIC: INTEGER c60</p> <p>-----</p>
<p>E c39==1 && c49!=6 && c54!=111 && c59==2</p>	
<p>V1 self>=1</p>	
<p>C61. In the last bill (or pre-pay invoice/recharge), how much did you spend on electric?</p>	<p>NUMERIC: INTEGER c61</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>I ENUMERATOR: See the amount on the last invoice.</p>	
<p>E c39==1 && c54!=111 && c58==1</p>	
<p>V1 self>0</p>	
<p>M1 Error: Must be greater than or equal to 0.</p>	
<p>V2 \$multiple5</p>	
<p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	
<p>C62. In the last bill (or pre-pay invoice/recharge), how much electricity did your household consume? (Quantity in Kilowatt Hour (kWh))</p>	<p>NUMERIC: DECIMAL c62</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>I ENUMERATOR: See the amount on the last invoice.</p>	
<p>E c39==1 && c54!=111 && c58==1</p>	
<p>C63. In a typical month, how much did you spend on electricity?</p>	<p>NUMERIC: INTEGER c63</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>E c39==1 && c54!=111 && c58==1</p>	
<p>V1 \$multiple5</p>	
<p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	
<p>V2 self>=0</p>	
<p>M2 ENUMERATOR: See the amount on the last invoice.</p>	
<p>C64. Is the quality of electricity service the same all year?</p>	<p>SINGLE-SELECT c64</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>E c39==1</p>	
<p>C65. Do you receive information about a "load-shedding" schedule (load shedding is the set hours of electricity available from the mini grid)?</p>	<p>SINGLE-SELECT c65</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>E c39==1</p>	

<p>C66. How many hours of electricity are available each day and night from the mini-grid?</p> <p>I Max 24 hrs E c39==1 V1 self.InRange(1,24) M1 Error: Must be between 1 and 24.</p>	<p>NUMERIC: INTEGER c66</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C67. How many hours of electricity are available each evening, from 6:00 pm to 10:00 pm from the mini-grid? (max 4 hours)</p> <p>I Max 4 hrs E c39==1 V1 self.InRange(0,4) M1 Error: Must be between 0 and 4.</p>	<p>NUMERIC: INTEGER c67</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C68. How many unscheduled outages/blackouts occur in a typical week?</p> <p>E c39==1 V1 self>=1 M1 Error: Must be greater than or equal to 1. If 0, select "No blackouts".</p>	<p>NUMERIC: INTEGER c68</p> <p>-----</p> <p>SPECIAL VALUES 111 No blackouts 888 Don't know</p>
<p>STATIC TEXT</p> <p>E c39==1 && c68!=111</p> <p><i>C69. What is the total duration of all the unscheduled outages/blackouts in a typical week? (Hrs & Minutes)</i></p>	
<p>C69a. HOURS</p> <p>E c39==1 && c68!=111</p>	<p>NUMERIC: INTEGER c69a</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C69b. MINUTES</p> <p>E c39==1 && c68!=111 V1 self.InRange(0,59) M1 Error: The number of minutes should be 1 and 59. If 60 min and more, it is necessary to convert to hour.</p>	<p>NUMERIC: INTEGER c69b</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C70. What is your main back-up source of lighting during outages/blackouts of the mini-grid? (both scheduled and unscheduled outages)</p> <p>E c39==1</p>	<p>SINGLE-SELECT c70</p> <p>001 <input type="radio"/> Electric Generator 002 <input type="radio"/> Solar Lantern 003 <input type="radio"/> Solar Lighting System 004 <input type="radio"/> Solar Home System 006 <input type="radio"/> Rechargeable battery (e.g.: car battery) 007 <input type="radio"/> Kerosene lamp 008 <input type="radio"/> Biogas based lamps 009 <input type="radio"/> Other fossil-fuel based lighting 010 <input type="radio"/> Flashlight/torch/lamp with dry-cell batteries 011 <input type="radio"/> Mobile phone light 012 <input type="radio"/> Candles 111 <input type="radio"/> No backup sources 555 <input type="radio"/> Other, specify</p>

<p>C70_oth. Please specify "Other"</p> <p>E c70==555</p>	<p>TEXT c70autre</p> <p>.....</p>
<p>C.71 What is your main back-up source of electricity for appliances (including mobile phone charging) during outages/blackouts of the mini-grid? (both scheduled and unscheduled outages)</p> <p>E c39==1</p>	<p>SINGLE-SELECT c71</p> <p>001 <input type="radio"/> Electric generator</p> <p>002 <input type="radio"/> Rechargeable battery (e.g.: car battery)</p> <p>003 <input type="radio"/> Solar Lantern</p> <p>004 <input type="radio"/> Solar Home System</p> <p>005 <input type="radio"/> Solar Lighting System</p> <p>006 <input type="radio"/> Dry-cell batteries</p> <p>555 <input type="radio"/> Other, specify</p> <p>111 <input type="radio"/> No back-up source</p>
<p>C71_oth. Please specify "Other"</p> <p>E c71==555</p>	<p>TEXT c71autre</p> <p>.....</p>
<p>C72. The last time you asked for assistance, how many days after you contacted power company did they come to fix the problem?</p> <p>E c39==1</p>	<p>NUMERIC: INTEGER c72</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't Know</p>
<p>C73. In the last 12 months, did any of your appliances get damaged because the voltage from the mini grid was going up and down?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c73</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>C74. What are the most serious problems you experience with your mini grid electricity?</p> <p>I Record up to 2 responses.</p> <p>E c39==1</p>	<p>MULTI-SELECT c74</p> <p>001 <input type="checkbox"/> Supply shortage/not enough hours of electricity</p> <p>002 <input type="checkbox"/> Low/high voltage problems or voltage fluctuations</p> <p>003 <input type="checkbox"/> Unpredictable interruptions</p> <p>004 <input type="checkbox"/> Unexpectedly high bills</p> <p>005 <input type="checkbox"/> High cost of electricity</p> <p>006 <input type="checkbox"/> Do not trust the supplier</p> <p>007 <input type="checkbox"/> Cannot power large appliances</p> <p>008 <input type="checkbox"/> Maintenance/service problems</p> <p>555 <input type="checkbox"/> Other, specify</p> <p>111 <input type="checkbox"/> No problems</p>
<p>C74_oth. Please specify "Other"</p> <p>E c74.Contains(555)</p>	<p>TEXT c74autre</p> <p>.....</p>
<p>C75. Is your electric wiring adequately (or appropriately) insulated?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c75</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C76. In the last 12 months, did any household members die or have permanent limb (bodily injury) damage because of the mini grid electricity?</p> <p>E c39==1</p>	<p>SINGLE-SELECT c76</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

<p>C77. Was this injury due to faulty wiring/connection?</p> <p>E c39==1 && c76==1</p>	<p>SINGLE-SELECT c77</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
--	---

C. SUPPLY AND DEMAND OF ELECTRICITY
ELECTRIC GENERATOR

<p>C78. In the last 12 months, did the household use a generator to supply electricity?</p>	<p>SINGLE-SELECT c78</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C79. Do you share this generator with other households?</p> <p>I If multiple generators, ask for the main generator.</p> <p>E c78==1</p>	<p>SINGLE-SELECT c79</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C80. How many households are sharing electricity from this generator?</p> <p>I Ask about main generator.</p> <p>E c79==1</p> <p>W1 self.InRange(2,20)</p> <p>M1 Error: The number of households must be greater than 1</p>	<p>NUMERIC: INTEGER c80</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C81. ENUMERATOR: What is the capacity of the generator, in voltampere (kVA)?</p> <p>I ENUMERATOR: Read the nameplate of the main generator</p> <p>E c78==1</p>	<p>NUMERIC: INTEGER c81</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C82. In the last 12 months, in which months did you use this generator or did you use it all year?</p> <p>I Multiple responses possible</p> <p>E c78==1</p> <p>V1 self.ContainsOnly(111) || !self.Contains(111)</p> <p>M1 Error: Cannot select "all year round" with other options and vice versa. Please correct.</p>	<p>MULTI-SELECT c82</p> <p>001 <input type="checkbox"/> January</p> <p>002 <input type="checkbox"/> February</p> <p>003 <input type="checkbox"/> March</p> <p>004 <input type="checkbox"/> April</p> <p>005 <input type="checkbox"/> May</p> <p>006 <input type="checkbox"/> June</p> <p>007 <input type="checkbox"/> July</p> <p>008 <input type="checkbox"/> August</p> <p>009 <input type="checkbox"/> September</p> <p>010 <input type="checkbox"/> October</p> <p>011 <input type="checkbox"/> November</p> <p>012 <input type="checkbox"/> December</p> <p>111 <input type="checkbox"/> Used all year</p>
<p>C83. How many days per month did you typically use this generator?</p> <p>E c78==1</p> <p>V1 self.InRange(1,31)</p> <p>M1 Error: Must be between 1 and 31. Please correct</p>	<p>NUMERIC: INTEGER c83</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>C84. In the last 12 months, what did your household use this generator for?</p> <p>I Multiple responses possible E c78==1 V1 self.ContainsOnly(888) || !self.Contains(888) M1 Error: Cannot select "all year round" with other options and vice versa. Please correct.</p>	<p>MULTI-SELECT c84</p> <p>001 <input type="checkbox"/> Lighting 002 <input type="checkbox"/> Appliances 003 <input type="checkbox"/> Home-based income activity 555 <input type="checkbox"/> Other, specify 888 <input type="checkbox"/> Don't know</p>
<p>C84_oth. Please specify other</p> <p>E c84.Contains(555)</p>	<p>TEXT c84autre</p> <p>.....</p>
<p>C85. How many years have you been using this generator?</p> <p>I If less than 1 year, record 1 E c78==1 V1 self.InRange(1,30) M1 Error: The number of years cannot be 0 and seems too much if more than 30 years</p>	<p>NUMERIC: INTEGER c85</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C86. In the last 12 months, how much did you pay for repairs/parts/maintenance of the generator?</p> <p>E c78==1 V1 self>=0 M1 Error: This amount cannot be negative W2 \$multipleDe5 M2 Error: This amount does not seem to be in Burundian Franc. Please check</p>	<p>NUMERIC: INTEGER c86</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C87. What fuel is used to power the generator?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c87</p> <p>001 <input type="radio"/> Diesel 002 <input type="radio"/> Gasoline 555 <input type="radio"/> Other, specify 888 <input type="radio"/> Don't know</p>
<p>C87_oth. Please specify "Other"</p> <p>E c87==555</p>	<p>TEXT c87autre</p> <p>.....</p>
<p>C88. During the typical month when a generator is used, what is the total quantity of fuel used to power the generator per month on average?</p> <p>E c78==1</p>	<p>NUMERIC: INTEGER c88</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>C89. Do you pay for the fuel used to power the generator?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c89</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C90. During the typical month when a generator is used, how much does your household spend on fuel for this generator per month on average?</p> <p>E c89==1 V1 self>0 M1 Error: The amount must be greater than 0 V2 \$multipleDe5 M2 Error: This amount does not seem to be in Burundian Franc. Please check</p>	<p>NUMERIC: INTEGER c90</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>

<p>C91. Are there certain months/seasons of the year when the required amount of fuel is unavailable to power the generator?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c91</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C92. How many hours can you use this generator each day and night if you want to?</p> <p>I Maximum 24 heures</p> <p>E c78==1</p> <p>V1 self.InRange(1,24)</p> <p>M1 Error: Must be between 1 and 24.</p>	<p>NUMERIC: INTEGER c92</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C93. How many hours can you use this generator each evening, from 6:00 pm to 10:00 pm if you want to?</p> <p>I Maximum 4 heures</p> <p>E c78==1</p> <p>V1 self.InRange(0,4)</p> <p>M1 Error: Must be between 1 and 4.</p>	<p>NUMERIC: INTEGER c93</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C93. How many unscheduled outages/blackouts occur in a typical week?</p> <p>E c78==1</p>	<p>NUMERIC: INTEGER c94</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>111 None</p> <p>888 Don't know</p>
<p>STATIC TEXT</p> <p>E c78==1 && c94!=111</p>	
<p><i>C94. What is the total duration of all the unscheduled outages/blackouts in a typical week? (Hrs & Minutes)</i></p>	
<p>C95a. HOURS</p> <p>I HEURES</p> <p>E c78==1 && c94!=111</p> <p>V1 self.InRange(0,168)</p> <p>M1 Error! This duration must not exceed 168 hours of the week. Check.</p>	<p>NUMERIC: INTEGER c95a</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C95b. MINUTES</p> <p>I MINUTES</p> <p>E c78==1 && c94!=111</p> <p>V1 self.InRange(0,59)</p> <p>M1 Error: The number of minutes should be 1 and 59. If 60 min and more, it is necessary to convert to hour</p>	<p>NUMERIC: INTEGER c95b</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C96. In the last 12 months, did any of your appliances get damaged because the voltage from the generator was going up and down?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c96</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> No</p> <p>888 <input type="radio"/> Don't Know</p>

<p>C97. What are the most serious problems you experience with the generator?</p> <p>I Record up to 2 answers. E c78==1</p>	<p>MULTI-SELECT: ORDERED c97</p> <p>001 <input type="checkbox"/> Limited power supply</p> <p>002 <input type="checkbox"/> Cannot power large appliances</p> <p>003 <input type="checkbox"/> Too expensive to use (including high cost of fuel/rent)</p> <p>004 <input type="checkbox"/> Availability of the fuel</p> <p>005 <input type="checkbox"/> Hard to maintain/service</p> <p>006 <input type="checkbox"/> Loud/Noisy</p> <p>007 <input type="checkbox"/> Unpredictable interruptions</p> <p>555 <input type="checkbox"/> Other, specify</p> <p>111 <input type="checkbox"/> No problems</p>
<p>C97_oth. Please specify other</p> <p>E c97.Contains(555)</p>	<p>TEXT c97autre</p> <p>.....</p>
<p>C98. Is your electric wiring adequately (or appropriately) insulated?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c98</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C99. In the last 12 months, did any household members die or have permanent limb (bodily injury) damage because of the generator?</p> <p>E c78==1</p>	<p>SINGLE-SELECT c99</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C100. Was this injury due to faulty wiring/connection?</p> <p>E c99==1</p>	<p>SINGLE-SELECT c100</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>

C. SUPPLY AND DEMAND OF ELECTRICITY
EXTERNALLY RECHARGED BATTERY (CAR BATTERY, ETC)

<p>C101. In the last 12 months, did the household use any rechargeable batteries, such as car batteries, for electricity?</p>	<p>SINGLE-SELECT c101</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C.102 In the last 12 months, in which months did you use rechargeable batteries or did you use it all year?</p> <p>I Multiple responses possible E c101==1 V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "Used all year" with another option. Please check. V2 self.ContainsOnly(888) || !self.Contains(888) M2 Error: Cannot select "Don't know" with another option. Please check.</p>	<p>MULTI-SELECT c102</p> <p>001 <input type="checkbox"/> January</p> <p>002 <input type="checkbox"/> February</p> <p>003 <input type="checkbox"/> March</p> <p>004 <input type="checkbox"/> April</p> <p>005 <input type="checkbox"/> May</p> <p>006 <input type="checkbox"/> June</p> <p>007 <input type="checkbox"/> July</p> <p>008 <input type="checkbox"/> August</p> <p>009 <input type="checkbox"/> September</p> <p>010 <input type="checkbox"/> October</p> <p>011 <input type="checkbox"/> November</p> <p>012 <input type="checkbox"/> December</p> <p>111 <input type="checkbox"/> Used all year</p> <p>888 <input type="checkbox"/> Don't know</p>

<p>C103. In the last 12 months, what did your household use rechargeable batteries for?</p> <p>I Multiple responses E c101==1</p>	<p>MULTI-SELECT c103</p> <p>001 <input type="checkbox"/> Lighting</p> <p>002 <input type="checkbox"/> Appliances</p> <p>003 <input type="checkbox"/> Home-based income activity</p> <p>555 <input type="checkbox"/> Other, specify</p>
<p>C103_oth. Please specify other</p> <p>E c103.Contains(555)</p>	<p>TEXT c103autre</p> <p>.....</p>
<p>C104. Does your household have an inverter that allows you to use AC appliances?</p> <p>E c101==1</p>	<p>SINGLE-SELECT c104</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>C105. What is the capacity of the inverter? (Watts (W))</p> <p>E c101==1 && c104==1</p>	<p>NUMERIC: INTEGER c105</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C106. What is the total number of rechargeable batteries that you use in a typical month?</p> <p>I Total = number of batteries * number of charges for each battery E c101==1</p>	<p>NUMERIC: INTEGER c106</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C107. How much in FBu did you pay for your rechargeable battery(s)?</p> <p>I In Burundian Franc. E c101==1 V1 self>=0 M1 Error: This amount cannot be negative V2 \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER c107</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p> <p>111 Didn't pay</p>
<p>C107. How much does your household spend in a typical month to recharge the batteries (in total)?</p> <p>I In Burundian Franc. E c101==1 V1 self>=0 M1 Error: This amount may be negative. Please correct V2 \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER c108</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C109. Where do you charge the battery?</p> <p>E c101==1</p>	<p>SINGLE-SELECT c109</p> <p>001 <input type="radio"/> In-house</p> <p>002 <input type="radio"/> Local shop/store</p> <p>003 <input type="radio"/> Neighbor</p> <p>555 <input type="radio"/> Other, specify</p>
<p>C109_oth.Please specify "Other"</p> <p>E c109==555</p>	<p>TEXT c109autre</p> <p>.....</p>

<p>C110. What is the electricity source used to recharge the battery?</p> <p>E c101==1 && c109==1</p>	<p>SINGLE-SELECT c110</p> <p>001 <input type="radio"/> National grid REGIDESO</p> <p>002 <input type="radio"/> Mini grid</p> <p>003 <input type="radio"/> Electric generator</p> <p>004 <input type="radio"/> Solar</p> <p>555 <input type="radio"/> Other, specify</p>
<p>C110_oth. Please specify "Other"</p> <p>E c110==555</p>	<p>TEXT c110autre</p> <p>.....</p>
<p>C111. How many hours can you use the rechargeable batteries for electricity supply each day if you want to?</p> <p>E c101==1</p> <p>V1 self.InRange(1,24)</p> <p>M1 Error: Must be between 1 and 24 hours</p>	<p>NUMERIC: INTEGER c111</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C112. How many hours can you use the rechargeable batteries for electricity supply each evening, from 6:00 pm to 10:00 pm if you want to?</p> <p>E c101==1</p> <p>V1 self.InRange(0,4)</p> <p>M1 Error: Must be between 0 and 4 hours maximum</p>	<p>NUMERIC: INTEGER c112</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C113. How many hours do you actually use rechargeable batteries for electricity supply each day?</p> <p>I You cannot exceed the number of hours in C.111</p> <p>E c101==1</p> <p>V1 self.InRange(0,c111)</p> <p>M1 Error: This number of hours must be between 0 and %c111% (response to C111). Please correct</p>	<p>NUMERIC: INTEGER c113</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C114. How many hours do you actually use rechargeable batteries for electricity supply each evening, from 6:00 pm to 10:00 pm?</p> <p>I You cannot exceed the number of hours in C.112</p> <p>E c101==1</p> <p>V1 self.InRange(0,c112)</p> <p>M1 Error: This number of hours must be between 0 and %c111% (response to C112). Please correct</p>	<p>NUMERIC: INTEGER c114</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C115. What is the capacity of the rechargeable batteries? (Ampere-hours) If multiple batteries, record capacity for the most used battery.</p> <p>I If multiple batteries, note the capacity for the most used battery</p> <p>E c101==1</p>	<p>NUMERIC: INTEGER c115</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C116. What is the voltage (in volts) of the rechargeable batteries?</p> <p>I If multiple batteries, note the capacity for the most used battery</p> <p>E c101==1</p>	<p>NUMERIC: INTEGER c116</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

<p>C117. What are the most serious problems you experience with the rechargeable batteries?</p> <p>I Record up to 2 answers E c101==1 V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "No problem" with another option. Please check.</p>	<p>MULTI-SELECT c117</p> <p>001 <input type="checkbox"/> Supply shortage/not enough hours of electricity 002 <input type="checkbox"/> High cost of electricity 003 <input type="checkbox"/> Cannot power large appliances 004 <input type="checkbox"/> Recharging is not convenient 005 <input type="checkbox"/> Maintenance & repair is difficult 006 <input type="checkbox"/> Cannot recharge battery to full capacity 555 <input type="checkbox"/> Other, specify 111 <input type="checkbox"/> No problems</p>
<p>C117_oth. Please specify "Other"</p> <p>E c117.Contains(555)</p>	<p>TEXT c117autre</p> <p>.....</p>
<p>C118. Is your electric wiring insulated?</p> <p>E c101==1</p>	<p>SINGLE-SELECT c118</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C119. In the last 12 months, did any household members die or have permanent limb (bodily injury) damage because of the rechargeable batteries?</p> <p>E c101==1</p>	<p>SINGLE-SELECT c119</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C120. Was this injury due to faulty wiring/connection?</p> <p>E c101==1 && c119==1</p>	<p>SINGLE-SELECT c120</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON 03 <input type="radio"/> Ne Sait Pas</p>

C. SUPPLY AND DEMAND OF ELECTRICITY
SOLAR BASED DEVICES

<p>C122. In the last 12 months, did the household use any solar-based devices?</p>	<p>SINGLE-SELECT c122</p> <p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C123. In order of importance, what are the different solar systems you use?</p> <p>I ENUMERATOR: define each type of device, and show photo if necessary. 1. Solar Lantern 2. Solar lighting system with multiple light points 3. Solar home system E c122==1 V1 self.Contains(2)? self.Contains(1): self.Contains(3)? self.Contains(2): self.Contains(5)? self.Contains(4): self.Contains(6)? self.Contains(5): self.Contains(8)? self.Contains(7): self.Contains(9) And 26 other symbols [2] M1 Error: Cannot select #2 if #1 has not been selected first. Similarly, cannot select #3 if #2 has not been selected first. Please verify.</p>	<p>MULTI-SELECT: ORDERED c123</p> <p>01 <input type="checkbox"/> Solar lantern 1 02 <input type="checkbox"/> Solar lantern 2 03 <input type="checkbox"/> Solar lantern 3 04 <input type="checkbox"/> Solar lighting system 1 05 <input type="checkbox"/> Solar lighting system 2 06 <input type="checkbox"/> Solar lighting system 3 07 <input type="checkbox"/> Solar Home System 1 08 <input type="checkbox"/> Solar Home System 2 09 <input type="checkbox"/> Solar Home System 3</p>

C124. Of the solar systems mentioned above that your household uses, which is the MAIN device?

F c123.Contains(@optioncode)
E c122==1

SINGLE-SELECT

c124

- 01 Solar lantern 1
- 02 Solar lantern 2
- 03 Solar lantern 3
- 04 Solar lighting system 1
- 05 Solar lighting system 2
- 06 Solar lighting system 3
- 07 Solar Home System 1
- 08 Solar Home System 2
- 09 Solar Home System 3

C. SUPPLY AND DEMAND OF ELECTRICITY / SOLAR BASED DEVICES

Roster: SOLAR DEVICE

generated by multi-select question [c123](#)

solar_devices

E c122==1

C125a. What is the manufacturer and brand of this %rosteritle%?

E IsAnswered(c124)

SINGLE-SELECT

c125a

- 001 SunKing
- 002 Bright Products
- 003 d.light
- 004 Barefoot
- 005 Rural Spark
- 111 Sans marque
- 555 Other, specify
- 888 Don't know

C125a_oth. Please specify "Other"

E c125a==555

TEXT

c125aautre

.....

C125b. What is the manufacturer and brand of this %rosteritle%?

F c125a==1? @optioncode.InList(1,2,3,4,5,6,7,8,555,888): c125a==2? @optioncode.InList(9,10,11,12,13,14,555,888): c125a==3? @optioncode.InList(15,16,17,18,19,20,555,888): c125a==4? @optioncode.InList([And 109 other symbols \[1\]](#))
E IsAnswered(c125a)

SINGLE-SELECT

c125b

- 001 Pico Plus
- 002 Pro 200
- 003 Pro 300
- 004 Pro 400
- 005 Boom
- 006 Home 60
- 007 Home 120
- 008 Home 400
- 009 SunBell Smart
- 010 Move Smart
- 011 Start/start++
- 012 SunTurtle
- 013 Home 29
- 014 Home 58
- 015 A2
- 016 S3

[And 16 other symbols \[7\]](#)

C125b_oth. Please specify "Other".

E c125b==555

TEXT

c125bautre

.....

<p>C126. Can you charge your phone using this %rosteritle%?</p>	<p>SINGLE-SELECT c126 01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C127. Can you power your radio using this %rosteritle%?</p>	<p>SINGLE-SELECT c127 01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>
<p>C128. How many light bulbs are powered with this %rosteritle%?</p> <p>V1 self>=1 M1 Error: Must be greater than or equal to 1.</p>	<p>NUMERIC: INTEGER c128 -----</p>
<p>C129. Do you use any of these appliances with this %rosteritle%?</p> <p>I Multiple responses possible V1 self.Yes.ContainsOnly(111) || !self.Yes.Contains(111) M1 Error: Cannot select "No device" with another option. Please check.</p>	<p>MULTI-SELECT: YES/NO c129 001 <input type="checkbox"/> / <input type="checkbox"/> Television 002 <input type="checkbox"/> / <input type="checkbox"/> Fan 003 <input type="checkbox"/> / <input type="checkbox"/> Refrigerator 004 <input type="checkbox"/> / <input type="checkbox"/> Tablet/laptop/computer 111 <input type="checkbox"/> / <input type="checkbox"/> No appliances 555 <input type="checkbox"/> / <input type="checkbox"/> Other, specify</p>
<p>C129_oth. Please specify "Other"</p> <p>E c129.Yes.Contains(555)</p>	<p>TEXT c129autre -----</p>
<p>C131. In the best of your knowledge, does the system have the capacity to power any of the following:</p> <p>I Read options aloud E c129.Yes.ContainsOnly(111) V1 self.Yes.ContainsOnly(111) || !self.Yes.Contains(111) M1 Error: Cannot select "No device" with another option. Please check. V2 self.Yes.ContainsOnly(888) || !self.Yes.Contains(888) M2 Error: Cannot select "don't know" with another option. Please check. V3 !(self.Missing.Any()) M3 Warning: Please answer yes or no to each item before moving on.</p>	<p>MULTI-SELECT: YES/NO c131 001 <input type="checkbox"/> / <input type="checkbox"/> Television 002 <input type="checkbox"/> / <input type="checkbox"/> Fan 003 <input type="checkbox"/> / <input type="checkbox"/> Refrigerator 004 <input type="checkbox"/> / <input type="checkbox"/> Tablet/laptop/computer 555 <input type="checkbox"/> / <input type="checkbox"/> Other, specify 111 <input type="checkbox"/> / <input type="checkbox"/> No device 888 <input type="checkbox"/> / <input type="checkbox"/> Don't know</p>
<p>C131_oth. Please specify "Other".</p> <p>E c131.Yes.Contains(555)</p>	<p>TEXT c131autre -----</p>
<p>C132. What is the capacity of the battery of %rosteritle% ?? (Amp-hours [Ah])?</p>	<p>NUMERIC: INTEGER c133 ----- SPECIAL VALUES 888 Don't know</p>
<p>C133. Does this %rosteritle% have an inverter?</p>	<p>SINGLE-SELECT c134 01 <input type="radio"/> OUI 02 <input type="radio"/> NON 03 <input type="radio"/> Ne Sait Pas</p>
<p>C134. How many years have you had this %rosteritle% ?</p> <p>I Record number of years. If less than 1, record 1. V1 self.InRange(1, 50) M1 Error: Must be greater than or equal to 1</p>	<p>NUMERIC: INTEGER c135 ----- SPECIAL VALUES 888 Don't know</p>

C136. Who decided to purchase/ acquire this %rosteritle%?	SINGLE-SELECT: LINKED	c136
C137. Did you pay (are you still paying for this %rosteritle% or was it given for free?	SINGLE-SELECT 01 <input type="radio"/> Paid/still paying 02 <input type="radio"/> For free	c137
C138. Who gave you this %rosteritle%?	SINGLE-SELECT 001 <input type="radio"/> Local private organizations (NGO) 002 <input type="radio"/> Chief of village 003 <input type="radio"/> Local government 004 <input type="radio"/> Relative/Friend 555 <input type="radio"/> Other, specify	c138
C.138_oth. Please specify "Other".	TEXT	c138autre
C139. How much did you pay for this %rosteritle% upfront?	NUMERIC: INTEGER	c139
E c137==1 V1 \$multipleDe5 M1 Error: This amount does not appear to be in Burundian Franc. Please check. V2 self>=0 M2 Error: Amount cannot be negative.		
C140. Did you pay (are you still paying) for this %rosteritle% in instalments?	SINGLE-SELECT 01 <input type="radio"/> OUI 02 <input type="radio"/> NON	c140
C141. Does this %rosteritle% come with a warranty (i.e.to exchange or repair if the device does not work)?	SINGLE-SELECT 01 <input type="radio"/> OUI 02 <input type="radio"/> NON 03 <input type="radio"/> Ne Sait Pas	c141
C142. How many hours do you use this %rosteritle% for lighting and other applications each day?	NUMERIC: INTEGER SPECIAL VALUES 888 Don't know	c142
C143. What are the most serious problems you experience with this %rosteritle%?	MULTI-SELECT 001 <input type="checkbox"/> Duration of service too short 002 <input type="checkbox"/> Recurrent cost related to solar device is too expensive 003 <input type="checkbox"/> Cannot power large appliances 004 <input type="checkbox"/> Breaks down too often 005 <input type="checkbox"/> Maintenance and availability of spare parts 006 <input type="checkbox"/> Quality of light 007 <input type="checkbox"/> Battery problems 555 <input type="checkbox"/> Other, specify 111 <input type="checkbox"/> No problems	c143
I Record up to 2 responses. V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "No problem" with other options. Please correct		

<p>C143_oth. Please specify "Other".</p> <p>E c143.Contains(555)</p>	<p>TEXT c143autre</p> <p>.....</p>
<p>C144. Is there an easily accessible service to repair or replace this %rosteritle%?</p> <p>E c143.ContainsAny(4, 5)</p>	<p>SINGLE-SELECT c144</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>

C. SUPPLY AND DEMAND OF ELECTRICITY / SOLAR BASED DEVICES
MAIN SOLAR DEVICE

E c122==1 && IsAnswered(c124)

<p>C145. At the time of the purchase of your main solar device %c124%, was the amount you paid for the ...</p>	<p>SINGLE-SELECT c145</p> <p>001 <input type="radio"/> Full amount</p> <p>002 <input type="radio"/> Partial amount</p> <p>111 <input type="radio"/> Didn't pay</p>
<p>C146. What is the term period for the payment in months?</p> <p>I If less than 1 month, insert 1.</p> <p>E c145==2</p> <p>V1 self>=1</p> <p>M1 Error: Must be greater than or equal to 1. Please correct.</p>	<p>NUMERIC: INTEGER c146</p> <p>-----</p>
<p>C147. What payment system do you use?</p> <p>E c145==2</p>	<p>SINGLE-SELECT c147</p> <p>01 <input type="radio"/> Mobile Pay-as-you-go</p> <p>02 <input type="radio"/> Other Pay-as-you go (scratch card, etc.)</p> <p>03 <input type="radio"/> Fixed fee</p>
<p>C148. What is the monthly payment for this main device (installment/ fee to rent/use)?</p> <p>I In FBu</p> <p>E c145==2</p> <p>V1 self>=0</p> <p>M1 Error: Must be greater than or equal to 1. Please correct.</p> <p>V2 \$multiple5</p> <p>M2 Error: This amount does not seem to be in Burundian Franc. Please check</p>	<p>NUMERIC: INTEGER c148</p> <p>-----</p>
<p>C149. Are there certain months/seasons every year when the service is not as strong from the main device?</p> <p>E c145==2</p>	<p>SINGLE-SELECT c149</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C150. How many hours do you receive electricity from this main device each day and night?</p> <p>V1 self.InRange(1, 24)</p> <p>M1 Error: max 24</p>	<p>NUMERIC: INTEGER c150</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C151. How many hours do you receive electricity from your main system each evening, between 18:00 and 22:00?</p> <p>V1 self.InRange(0, 4)</p> <p>M1 Error: Must be between 0 and 4. Please correct</p> <p>V2 self<=c150</p> <p>M2 Erreur. ce nombre ne peut être supérieur à %c150%</p>	<p>NUMERIC: INTEGER c151</p> <p>-----</p>

<p>C152. Is your electric wiring insulated?</p>	<p>SINGLE-SELECT c152</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C153. In the last 12 months, did any household members die or have permanent limb (bodily injury) damage because of the main solar device?</p>	<p>SINGLE-SELECT c153</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>C154. Was this injury due to faulty wiring/connection?</p> <p>E c153==1</p>	<p>SINGLE-SELECT c154</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>C155? Is there any appliance that you do not own but would like to</p> <p>I Record up to 3 devices.</p> <p>E c153==1</p> <p>V1 self.ContainsOnly(555) || !self.contains(555)</p> <p>M1 Error: Cannot select "Don't know" with other options. Please correct</p>	<p>MULTI-SELECT c155</p> <p>001 <input type="checkbox"/> Television</p> <p>002 <input type="checkbox"/> Fan</p> <p>003 <input type="checkbox"/> Refrigerator</p> <p>004 <input type="checkbox"/> Radio</p> <p>005 <input type="checkbox"/> Tablet/laptop/computer</p> <p>006 <input type="checkbox"/> Mobile phone charger</p> <p>007 <input type="checkbox"/> Air conditioner</p> <p>555 <input type="checkbox"/> Other, specify</p> <p>888 <input type="checkbox"/> Don't know</p>
<p>C155_oth. Please specify "Other".</p> <p>E c155.contains(555)</p>	<p>TEXT c155autre</p> <p>.....</p>
<p>C156. Overall, how satisfied are you with the service provided by the main solar device?</p>	<p>SINGLE-SELECT c156</p> <p>01 <input type="radio"/> Very satisfied</p> <p>02 <input type="radio"/> Somewhat satisfied</p> <p>03 <input type="radio"/> Neutral</p> <p>04 <input type="radio"/> Unsatisfied</p> <p>05 <input type="radio"/> Very unsatisfied</p>
<p>C158. In what year did you get your first solar device?</p> <p>V1 self.InRange(1980, 2021)</p> <p>M1 Error: Cannot be after 2021</p>	<p>NUMERIC: INTEGER c157</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>C158. Has solar been your main source of lighting/electricity since %c157% ?</p>	<p>SINGLE-SELECT c158</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>

<p>C159. What was your main source of lighting/electricity when it was not a solar device?</p> <p>E c158!=1</p>	<p>SINGLE-SELECT c159</p> <p>001 <input type="radio"/> National grid</p> <p>002 <input type="radio"/> Mini grid</p> <p>003 <input type="radio"/> Electric generator</p> <p>004 <input type="radio"/> Rechargeable battery (e.g.: car battery)</p> <p>005 <input type="radio"/> Kerosene lamp</p> <p>006 <input type="radio"/> Biogas based lamps</p> <p>007 <input type="radio"/> Dry-cell battery/Torch/Flashlight</p> <p>008 <input type="radio"/> Candle</p> <p>010 <input type="radio"/> Biogas lamp</p> <p>011 <input type="radio"/> Mobile phone light</p> <p>555 <input type="radio"/> Other, specify</p>
<p>C159_oth. Please specify "Other".</p> <p>E c159==555</p>	<p>TEXT c159autre</p> <p>.....</p>
<p>C160. Compared to the first time you used solar lighting, do you currently...</p> <p>I Read aloud options</p>	<p>SINGLE-SELECT c160</p> <p>001 <input type="radio"/> Use more solar lighting</p> <p>002 <input type="radio"/> Use about the same solar lighting</p> <p>003 <input type="radio"/> Use less solar lighting</p> <p>888 <input type="radio"/> Don't know</p>
<p>C161. What appliances do you use today that you did not use with your first solar lighting device?</p> <p>I Read aloud options</p> <p>E c160!=3</p> <p>V1 self.ContainsOnly(111) || !self.Contains(111)</p> <p>M1 Error: Cannot choose "No change" with another option. Please check.</p>	<p>MULTI-SELECT c161</p> <p>001 <input type="checkbox"/> Mobile phone charger</p> <p>002 <input type="checkbox"/> Radio</p> <p>003 <input type="checkbox"/> TV</p> <p>004 <input type="checkbox"/> Fan</p> <p>005 <input type="checkbox"/> Refrigerator</p> <p>111 <input type="checkbox"/> No change</p> <p>555 <input type="checkbox"/> Other, specify</p>
<p>C161_oth. Please specify "Other".</p> <p>E c161.Contains(555)</p>	<p>TEXT c161autre</p> <p>.....</p>

C. SUPPLY AND DEMAND OF ELECTRICITY
MAIN SOURCE OF ELECTRICITY

<p>C163. Of all the sources that you mentioned above, which is the source that you use the most in your household?</p> <p>W1 self==1? c2==1: self==2? c39==1: self==3? c78==1: self==7? c101==1: self==4? c122==1 && c123.ContainsAny(1,2,3): self==5? c122==1 && c123.ContainsAny(4,5,6): self==6? c122==1 && c123.ContainsA And 17 other symbols [3]</p> <p>M1 Error: The respondent did not state above that he had this source. Please check and correct.</p> <p>W2 self.InList(8,111)? (c122!=1 && c101!=1 && c78!=1 && c39!=1 && c2!=1): true</p> <p>M2 Error: Cannot select "dry cell batteries" or "no electricity" when answer is YES to one of the questions C2, C39, C78, C101, C122. Please check.</p>	<p>SINGLE-SELECT c162</p> <p>001 <input type="radio"/> National grid REGIDESO</p> <p>002 <input type="radio"/> Mini grid</p> <p>003 <input type="radio"/> Electric generator</p> <p>004 <input type="radio"/> Solar Lantern</p> <p>005 <input type="radio"/> Solar Lighting System</p> <p>006 <input type="radio"/> Solar Home System</p> <p>007 <input type="radio"/> Rechargeable Battery</p> <p>008 <input type="radio"/> Dry-cell batteries</p> <p>111 <input type="radio"/> No electricity</p>
--	--

D. WILLINGNESS TO PAY FOR A GRID CONNECTION

E cons==1 && c2==2

STATIC TEXT

ENUMERATOR: Respondent should be most knowledgeable member on household electricity.

D2. Enumerator: Record Respondent for this section	SINGLE-SELECT: LINKED	d2
F \$minAgeHH		
VARIABLE 90000	LONG	connection_full_price
VARIABLE (long)(Quest.IRnd() * 6)	LONG	index_random
VARIABLE new [] { 0.14, 0.29, 0.43, 0.57, 0.71, 1}[index_random.value]	DOUBLE	random_percentage
VARIABLE (long)(random_percentage * connection_full_price)	LONG	random_price

STATIC TEXT

ENUMERATOR: The random price is %random_price%.

STATIC TEXT

ENUMERATOR read aloud SVP: Electricity requires several types of payments. There are three parts to the cost of electricity: connection, wiring, and monthly use. In other words, to use electricity you need to have a wire from a meter in your house to the pole first. That is the connection. You also need to have wires to connect appliances within your house to the meter. This is the wiring. Finally, to keep using electricity you must pay for what is used and measured by the meter, or it will be turned off; this is the cost of monthly use. I would like to ask you questions only about the first cost of connecting – getting a wire from the electricity poles to a meter on your house.

In answering the next questions, assume that all other internal wiring charges and monthly usage charges, once you are connected, remain the same as they are now.

D3. Would you be willing to pay %random_price% FBu upfront for an electricity connection?	SINGLE-SELECT 01 <input type="radio"/> OUI 02 <input type="radio"/> NON	d3
D4. Would you be willing to pay %random_price% FBu for an electricity connection, if you were given 3 months to make the payment?	SINGLE-SELECT 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't know	d4
E d3==2		
D5. Would you be willing to pay %random_price% FBu for an electricity connection, if you were given 6 months to make the payment?	SINGLE-SELECT 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't know	d5
E d4.InList(2,888)		
D6. Would you be willing to pay %random_price% FBu for an electricity connection, if you were given 12 months to make the payment?	SINGLE-SELECT 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't know	d6
E d5.InList(2,888)		

<p>D7. If the connection fee were waived, would you get a grid connection?</p> <p>E d6.InList(2,888)</p>	<p>SINGLE-SELECT d7</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> No</p> <p>888 <input type="radio"/> Don't know</p>
<p>D8. Why would you not accept the offer?</p> <p>E d7.InList(2,888)</p>	<p>SINGLE-SELECT d8</p> <p>01 <input type="radio"/> Still cannot afford the wiring costs</p> <p>02 <input type="radio"/> Do not need electricity</p> <p>03 <input type="radio"/> Electricity service is unreliable</p> <p>04 <input type="radio"/> Monthly fee is too expensive</p> <p>96 <input type="radio"/> Other, specify</p>
<p>D8_oth. Please specify "Other".</p> <p>E d8==96</p>	<p>TEXT d8autre</p> <p>.....</p>
<p>D9. What is the estimate of the internal wiring cost in your house?</p> <p>V1 self>=0</p> <p>M1 Error: The amount cannot be negative</p> <p>V2 \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER d9</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
<p>D10. Think about the amount you would need to spend each month for electricity, not the connection fee. How much would you need to spend each month for electricity?</p> <p>W1 \$multipleDe5</p> <p>M1 Error: This amount does not appear to be in Burundian Franc. Please check.</p> <p>V2 self>=0</p> <p>M2 Error: The amount cannot be negative</p>	<p>NUMERIC: INTEGER d10</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>

E. WILLINGNESS TO PAY FOR SOLAR DEVICE

E cons==1 && (IsAnswered(c162) && c162==4||c162==111)

STATIC TEXT

ENQUETEUR: The respondent should be most knowledgeable member on household electricity.

VARIABLE new Random((int)Math.Floor(1000 * Quest.IRnd())).Next(0, 2)	LONG	index_random_2
VARIABLE new Random((int)Math.Floor((1000 * Quest.IRnd()) % 10)).Next(0, 3)	LONG	index_random_3
VARIABLE new [] { 0.33, 0.66, 1}[index_random_3.value]	DOUBLE	random_percentage_3
E2. Enumerator: Record Respondent ID for this section F \$minAgeHH	SINGLE-SELECT: LINKED	e2
VARIABLE index_random_2 == 0 ? // Insérez ici le prix du tier 1, système solaire domestique ci-dessous 29000 : // Insérez ici le prix du tier 2, système solaire domestique ci-dessous 42000	LONG	solar_full_price
VARIABLE (solar_full_price*random_percentage_3)	DOUBLE	solar_price

STATIC TEXT

E 1==0

ENUMERATOR: The randomly chosen price is %solar_price%.

E. WILLINGNESS TO PAY FOR SOLAR DEVICE SOLAR LANTERN D.LIGHT

E index_random_2 == 0

STATIC TEXT

color="blue" >Enumerator: Please read aloud:

I will now ask you some questions about [the solar lantern](#) of the brand [d.light](#). Here is the photo of the lantern [\[Enumerator show the photo and continue\]](#).

It is the A2 model with a capacity of 0.3 watts. It is a small and light solar lantern, with an integrated solar panel. It gives you 4 hours of light per day with a brightness of 30 lumens, which is 3 times stronger than the kerosene lamp. And of course, there is no need to pay for fuel.

When answering the next questions, keep in mind the benefits of this solar product as well as your household budget.

E3_sl. Would you be willing to pay %solar_price% Fbu upfront for this solar device?	SINGLE-SELECT 01 <input type="radio"/> OUI 02 <input type="radio"/> NON	e3_s1
E4_sl. Would you be willing to pay %solar_price% Fbu for this solar device, if you were given 6 months to make the payment? E e3_s1==2	SINGLE-SELECT 01 <input type="radio"/> OUI 02 <input type="radio"/> NON 03 <input type="radio"/> Ne Sait Pas	e4_s1

<p>E5_sl. Would you be willing to pay %solar_price% FBu for this solar device, if you were given 12 months to make the payment?</p> <p>E e4_sl.InList(2,3)</p>	<p>SINGLE-SELECT e5_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>E6_sl. Would you be willing to pay %solar_price% FBu for this solar device, if you were given 24 months to make the payment?</p> <p>E e4_sl.InList(2,3) && e5_sl!=1</p>	<p>SINGLE-SELECT e6_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>E7_sl. Why would you not accept the offer?</p> <p>E e4_sl.InList(2,3) && e5_sl!=1 && e6_sl!=1</p>	<p>SINGLE-SELECT e7_sl</p> <p>01 <input type="radio"/> Cannot afford the payment</p> <p>02 <input type="radio"/> I already have electricity to meet my needs</p> <p>03 <input type="radio"/> Maintenance/servicing of device is not available</p> <p>96 <input type="radio"/> Other, specify</p>
<p>E7_sl_oth. Please specify "Other"</p> <p>E e7_sl==96</p>	<p>TEXT e7_slautre</p> <p>.....</p>

E. WILLINGNESS TO PAY FOR SOLAR DEVICE
SOLAR LIGHTING SYSTEM BIOLITE

E index_random_2 == 1

STATIC TEXT

Enumerator, please read aloud: I will now ask you a few questions about the solar lighting system of the Biolite brand. Here is the picture of the system [Enumerator show the photo and continue]. It is the 620+ model with a capacity of 6 watts (or 23 watt hours). The product offers 3 light points to install on the ceiling. It has a USB socket to charge your mobile phone, a built-in radio and an MP3 player. When answering the next questions, keep in mind the benefits of this solar lighting system as well as your household budget.

<p>E3_sl. Would you be willing to pay %solar_price% FBu upfront for this solar device?</p>	<p>SINGLE-SELECT e3_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p>
<p>E4_sl. Would you be willing to pay %solar_price% FBu for this solar device, if you were given 6 months to make the payment?</p> <p>E e3_sl==2</p>	<p>SINGLE-SELECT e4_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>E5_sl. Would you be willing to pay %solar_price% FBu for this solar device, if you were given 12 months to make the payment?</p> <p>E e4_sl.InList(2,3)</p>	<p>SINGLE-SELECT e5_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>
<p>E6_sl. Would you be willing to pay %solar_price% FBu for this solar device, if you were given 24 months to make the payment?</p> <p>E e4_sl.InList(2,3) && e5_sl!=1</p>	<p>SINGLE-SELECT e6_sl</p> <p>01 <input type="radio"/> OUI</p> <p>02 <input type="radio"/> NON</p> <p>03 <input type="radio"/> Ne Sait Pas</p>

<p>E7_sls. Why would you not accept the offer?</p> <p>E e4_sls.InList(2,3) && e5_sls!=1 && e6_sls!=1</p>	<p>SINGLE-SELECT e7_sls</p> <p>01 <input type="radio"/> Cannot afford the payment</p> <p>02 <input type="radio"/> I already have electricity to meet my needs</p> <p>03 <input type="radio"/> Maintenance/servicing of device is not available</p> <p>96 <input type="radio"/> Other, specify</p>
<p>E7_sls_oth. Please specify "Other"</p> <p>E e7_sls==96</p>	<p>TEXT e7_slsautre</p> <p>.....</p>

F. HOUSEHOLD ASSETS: ELECTRICAL APPLIANCES

E cons==1 && a1.Length>=1

<p>F0. Enumerator: Record Respondent for this section</p>	<p>SINGLE-SELECT: LINKED</p>	<p>f0</p>
<p>I ENUMERATOR: The respondent must be the most knowledgeable member about electricity in the household. F \$minAgeHH</p>		
<p>F1. Which of the following items in working condition does your household own?</p>	<p>MULTI-SELECT: YES/NO</p>	<p>f1</p>
<p>I The item must be in working order W1 !(self.Missing.Any()) M1 Warning: Please answer yes or no to each item before moving on.</p>	<p>001 <input type="checkbox"/> / <input type="checkbox"/> Incandescent Light Bulb 002 <input type="checkbox"/> / <input type="checkbox"/> Fluorescent Tube 003 <input type="checkbox"/> / <input type="checkbox"/> Compact Fluorescent Light (CFL) Bulb 004 <input type="checkbox"/> / <input type="checkbox"/> LED Light Bulb 005 <input type="checkbox"/> / <input type="checkbox"/> Torch/flashlight/lantern (using dry-cell battery) 006 <input type="checkbox"/> / <input type="checkbox"/> Torch/flashlight/lantern (rechargeable) 007 <input type="checkbox"/> / <input type="checkbox"/> Smart Mobile Phone Charger (Internet Phone) 008 <input type="checkbox"/> / <input type="checkbox"/> Classic mobile phone charger 009 <input type="checkbox"/> / <input type="checkbox"/> Radio/CD Players/sound system (using dry-cell battery) 010 <input type="checkbox"/> / <input type="checkbox"/> Radio/CD players/sound system (without using dry-cell battery) 011 <input type="checkbox"/> / <input type="checkbox"/> Black & White TV 012 <input type="checkbox"/> / <input type="checkbox"/> Typical Color TV 013 <input type="checkbox"/> / <input type="checkbox"/> Flat color TV 014 <input type="checkbox"/> / <input type="checkbox"/> Computer 015 <input type="checkbox"/> / <input type="checkbox"/> VCD/DVD 016 <input type="checkbox"/> / <input type="checkbox"/> Ventilateur</p>	
<p>F1Autre. Specify</p>	<p>TEXT</p>	<p>f1autre</p>
<p>E f1.Yes.Contains(555)</p>	<p>.....</p>	

F. HOUSEHOLD ASSETS: ELECTRICAL APPLIANCES
Roster: ELECTRICAL APPLIANCES -
generated by multi-select question [f1](#)

appliances

<p>F2a. How many %rostertitle% in working condition does your household own?</p>	<p>NUMERIC: INTEGER</p>	<p>f2a</p>
<p>V1 self>0 M1 The household must have at least one. Please correct.</p>	<p>-----</p>	
<p>F2b. Has your household used this %rostertitle% in the past 6 months?</p>	<p>SINGLE-SELECT</p>	<p>f2b</p>
	<p>01 <input type="radio"/> OUI 02 <input type="radio"/> NON</p>	

F2c. How many hours does your household use
%rostertitle% in a typical day?

NUMERIC: INTEGER

f2c

I Number of hours
E @rowcode.InList(1,2,3,4,6,10,11,12,13,16,17,18) && f2b =
= 1
V1 self.InRange(0,24)
M1 Error

G. LIGHTING SOURCES

E cons==1 && a1.Length>=1

STATIC TEXT

ENUMERATOR: The respondent should be most knowledgeable household member on household use of kerosene and candles.

<p>G1. Enumerator: Record Respondent ID for this section</p> <p>F \$minAgeHH</p>	<p>SINGLE-SELECT: LINKED g1</p>
<p>G3. In the last 12 months, did you use any of these for lighting?</p> <p>I ENUMERATOR: Use photo aid to identify lamp type</p> <p>V1 self.Yes.ContainsOnly(111) || !self.Yes.Contains(111)</p> <p>M1 Error: Cannot choose "none" with other answer.</p> <p>V2 !(self.Missing.Any())</p> <p>M2 Warning: Please answer yes or no to each item before moving on.</p>	<p>MULTI-SELECT: YES/NO g3</p> <p>001 <input type="checkbox"/> / <input type="checkbox"/> Candle</p> <p>002 <input type="checkbox"/> / <input type="checkbox"/> Open wick lamp</p> <p>003 <input type="checkbox"/> / <input type="checkbox"/> Hurricane lamp with glass cover</p> <p>004 <input type="checkbox"/> / <input type="checkbox"/> Pressurized mantle lamp</p> <p>005 <input type="checkbox"/> / <input type="checkbox"/> Battery powered lamp/flashlight/torch</p> <p>111 <input type="checkbox"/> / <input type="checkbox"/> None</p> <p>555 <input type="checkbox"/> / <input type="checkbox"/> Other, specify</p>
<p>G3_oth. Please specify "Other".</p> <p>E g3.Yes.Contains(555)</p>	<p>TEXT g3autre</p> <p>.....</p>

G. LIGHTING SOURCES

Roster: LAMPS

generated by multi-select question [g3](#)

lighting_fuel

E !g3.Yes.Contains(111)

<p>G4. What is the main energy source for %rosteritle%?</p> <p>F @rowcode==1? @optioncode==1: @rowcode==5? @optioncode==5: @optioncode.InList(2,3,4,6,555)</p>	<p>SINGLE-SELECT g4</p> <p>001 <input type="radio"/> Candle</p> <p>002 <input type="radio"/> Kerosene</p> <p>003 <input type="radio"/> Diesel</p> <p>004 <input type="radio"/> Gasoline</p> <p>005 <input type="radio"/> Dry-cell batteries</p> <p>006 <input type="radio"/> Biogas</p> <p>555 <input type="radio"/> Other, specify</p>
<p>G4_oth. Please specify "Other"</p> <p>E g4==555</p>	<p>TEXT g4autre</p> <p>.....</p>
<p>VARIABLE</p> <p>@rowcode == 1 ? "bougie" : "lampe"</p>	<p>STRING candle_or_lamp</p>
<p>G5. How many of these %rosteritle% does your household have?</p> <p>V1 self > 0</p> <p>M1 Error: Must be greater than or equal to 1.</p>	<p>NUMERIC: INTEGER g5</p> <p>-----</p>

G6. What are the two main problems you encounter when using %rostertitle%?	<p>MULTI-SELECT g6</p> <p>001 <input type="checkbox"/> Lantern too expensive</p> <p>002 <input type="checkbox"/> Fuel too expensive</p> <p>003 <input type="checkbox"/> Fuel not available</p> <p>004 <input type="checkbox"/> Accidents can happen</p> <p>005 <input type="checkbox"/> Bad for health</p> <p>006 <input type="checkbox"/> Time spent to collect fuel</p> <p>007 <input type="checkbox"/> Poor quality light</p> <p>555 <input type="checkbox"/> Other, specify</p> <p>111 <input type="checkbox"/> No problems</p>
--	--

G6Autre. Veuillez préciser "Autre".	TEXT g6autre
E g6.Contains(555)	-----

G7. In the last 12 months, what type of harm/injury did any household members have from %rostertitle%?	<p>MULTI-SELECT g7</p> <p>001 <input type="checkbox"/> Death or permanent limb damage</p> <p>002 <input type="checkbox"/> Burns/fire</p> <p>003 <input type="checkbox"/> Poisoning</p> <p>004 <input type="checkbox"/> Eye problems</p> <p>005 <input type="checkbox"/> Respiratory problem</p> <p>006 <input type="checkbox"/> Other major injury</p> <p>007 <input type="checkbox"/> Minor injury</p> <p>008 <input type="checkbox"/> Fire with no injury</p> <p>111 <input type="checkbox"/> None</p>
<p>I Multiple responses.</p> <p>V1 self.ContainsOnly(111) || !self.Contains(111)</p> <p>M1 Error: Cannot select "None" with another option. Please correct.</p>	

G. LIGHTING SOURCES / LAMPS

Roster: FUELS

generated by fixed list

fue1

- 001 Candle
- 002 Kerosene
- 003 Diesel
- 004 Gasoline
- 005 Dry-cell batteries
- 006 Biogas
- 555 Other, specify

E !g3.Yes.ContainsAny(111) && g4==@rowcode

G11. What is usually the total quantity of %rostertitle% you purchase at a time?	NUMERIC: INTEGER g11
I LITERS OF FUEL/Number of Candles/dry cell batteries	-----

G12. In the last 12 months, how often do you buy %rostertitle%?	<p>SINGLE-SELECT g12</p> <p>001 <input type="radio"/> One a month</p> <p>002 <input type="radio"/> Twice a month</p> <p>003 <input type="radio"/> Once a week</p> <p>004 <input type="radio"/> Twice a week</p> <p>005 <input type="radio"/> Every day</p> <p>006 <input type="radio"/> If need be</p> <p>555 <input type="radio"/> Other, specify</p>
---	---

<p>G12_oth. Please specify "Other".</p> <p>E g12 == 555</p>	<p>TEXT g12autre</p> <p>-----</p>
<p>G13. How much do you spend in FBu %rostertitle% per purchase of %g11% expressed at G11?</p> <p>V1 self>0</p> <p>M1 Error: Must be greater than 0. Please check</p> <p>V2 //L'on vérifie que le montant renseigné est un multiple de 5 \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER g13</p> <p>-----</p>
<p>G14. What percentage of < %rostertitle% do you use for lighting compared to other applications (e.g. heating, cooking)?</p> <p>I Percentage</p> <p>E @rowcode!=0</p> <p>V1 self.InRange(0,100)</p> <p>M1 Error: Percentage may not exceed 100. Please correct</p>	<p>NUMERIC: INTEGER g14</p> <p>-----</p>

H. USE OF COOKING SOLUTIONS

E cons==1 && a1.Length>=1

STATIC TEXT

ENUMERATOR: *the respondent should be the household member who cooks most often for the household*

<p>H1. ENUMERATOR: Who is the member of the household who cooks most often?</p> <p>F \$minAgeHH && a9!=6</p>	<p>SINGLE-SELECT: LINKED h1</p>
<p>H2. How much time per day do you spend in cooking and other activities in the kitchen/cooking space?</p> <p>I Record time in minutes</p>	<p>NUMERIC: INTEGER h2</p> <p>-----</p>
<p>H4. In the last 12 months, which cookstove (s) did your household use for preparing meals (including cooking, boiling water, baking or other purposes)?</p> <p>I ENUMERATOR: Please show the respondent a photo of each household to assist the respondent or to confirm their response.</p>	<p>MULTI-SELECT h4</p> <p>001 <input type="checkbox"/> Three-stone fire</p> <p>002 <input type="checkbox"/> Foyer ya Tsinga</p> <p>003 <input type="checkbox"/> Thaï basket</p> <p>004 <input type="checkbox"/> Double-tête</p> <p>005 <input type="checkbox"/> Foyer Biikigiti céramique</p> <p>006 <input type="checkbox"/> Foyer Biikigiti métallique</p> <p>007 <input type="checkbox"/> Foyer fixe</p> <p>008 <input type="checkbox"/> Foyer (ILF) Canarumwe céramique</p> <p>009 <input type="checkbox"/> Nyayo (Thaï Basket amélioré)</p> <p>010 <input type="checkbox"/> Kamaro</p> <p>011 <input type="checkbox"/> Foyer Congo</p> <p>012 <input type="checkbox"/> Foyer Ya jante</p> <p>013 <input type="checkbox"/> Foyer métallique</p> <p>014 <input type="checkbox"/> Foyer Inyarwanda</p> <p>015 <input type="checkbox"/> Foyer Onatour</p> <p>016 <input type="checkbox"/> Biogaz stove</p> <p>And 3 other symbols [9]</p>
<p>H4_oth. Please specify "Other".</p> <p>I ENUMERATOR: Please take a photo of this cookstove</p> <p>E h4.Contains(555)</p>	<p>TEXT h4autre</p> <p>-----</p>

H. USE OF COOKING SOLUTIONS

Roster: COOKSTOVES

generated by multi-select question [h4](#)

cookstoves

<p>H5. How did you obtain this %rostertitle%?</p> <p>E @rowcode!=1</p>	<p>SINGLE-SELECT h5</p> <p>01 <input type="radio"/> Purchased, upfront</p> <p>02 <input type="radio"/> Purchased, in installment</p> <p>03 <input type="radio"/> Received for free</p> <p>04 <input type="radio"/> Self-made</p> <p>96 <input type="radio"/> Don't know</p>
--	--

<p>H6. Who decided to build/ purchase this %rosteritle%?</p> <p>F \$lowestAge E h5.InList(1,2)</p>	<p>SINGLE-SELECT: LINKED h6</p>
<p>H7. How much in Fbu was paid for %rosteritle%?</p> <p>E h5.InList(1,2) V1 self > 0 M1 Error: Must be greater than 0. V2 \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: INTEGER H07</p> <p>-----</p>
<p>H8. Who gave this %rosteritle% to you?</p> <p>E h5 == 3</p>	<p>SINGLE-SELECT h8</p> <p>001 <input type="radio"/> Local private organizations (NGO) 002 <input type="radio"/> Chief of village 003 <input type="radio"/> Local govt 004 <input type="radio"/> Friend/ relative 555 <input type="radio"/> Other, specify</p>
<p>H8_oth. Please specify "Other"</p> <p>E h8 == 555</p>	<p>TEXT h8autre</p> <p>-----</p>
<p>H9. Did you receive training on or information about how to operate the %rosteritle%</p> <p>E h5 != 888 && @rowcode!=1</p>	<p>SINGLE-SELECT h9</p> <p>01 <input type="radio"/> Yes 00 <input type="radio"/> No</p>
<p>STATIC TEXT</p>	
<p><i>H11. How long (years and months) have you been using this %rosteritle%?</i></p>	
<p>H11a. YEARS</p>	<p>NUMERIC: INTEGER h11a</p> <p>-----</p> <p>SPECIAL VALUES 00 Less than a year</p>
<p>H11b. MONTHS</p> <p>V1 self.InRange(0,11) M1 Error: The number of months must be less than 12. Otherwise use YEARS.</p>	<p>NUMERIC: INTEGER h11b</p> <p>-----</p>

<p>H12. In the last 12 months, during which of the following months did you use %rosteritle%?</p> <p>I Multiple responses possible V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select both "Used all year" and other options. V2 self.ContainsOnly(96) || !self.Contains(96) M2 Error: Cannot cannot select both "Don't Know" and other options.</p>	<p>MULTI-SELECT h12</p> <p>001 <input type="checkbox"/> January 002 <input type="checkbox"/> February 003 <input type="checkbox"/> March 004 <input type="checkbox"/> April 005 <input type="checkbox"/> May 006 <input type="checkbox"/> June 007 <input type="checkbox"/> July 008 <input type="checkbox"/> August 009 <input type="checkbox"/> September 010 <input type="checkbox"/> October 011 <input type="checkbox"/> November 012 <input type="checkbox"/> December 111 <input type="checkbox"/> Used all year 096 <input type="checkbox"/> Don't know</p>
<p>H13. In the last 12 months, where did you normally cook with %rosteritle%?</p>	<p>SINGLE-SELECT h13</p> <p>001 <input type="radio"/> In dwelling, NOT in sleeping area 002 <input type="radio"/> In dwelling, in a sleeping area 003 <input type="radio"/> In a separate kitchen 004 <input type="radio"/> In a veranda (roofed platform with at least two open sides) 005 <input type="radio"/> Outdoors 555 <input type="radio"/> Other, specify</p>
<p>H13_oth. Please specify "Other".</p> <p>E h13 == 555</p>	<p>TEXT h13autre</p> <p>.....</p>
<p>H14. What exhaust system, in working condition, do you use with %rosteritle%?</p> <p>I Multiple responses possible. E @rowcode.InList(2,3,4) && !h13.InList(4,5) V1 self.ContainsOnly(111) || !self.Contains(111) M1 Error: Cannot select "None" with another option. Please check.</p>	<p>MULTI-SELECT h14</p> <p>001 <input type="checkbox"/> Fan attached to the fireplace 002 <input type="checkbox"/> Chimney 003 <input type="checkbox"/> Hood 111 <input type="checkbox"/> No exhaust system 555 <input type="checkbox"/> Other, specify</p>
<p>H14_oth. Please specify "Other".</p> <p>E h14.Contains(555)</p>	<p>TEXT h14autre</p> <p>.....</p>
<p>H15a. In the last 12 months, what is the MOST USED fuels you used on %rosteritle%?</p> <p>I List the main fuel first, then the secondary fuel. Up to 2 possible answers. E @rowcode.InRange(1, 15)</p>	<p>MULTI-SELECT: ORDERED h15</p> <p>001 <input type="checkbox"/> Wood purchased 002 <input type="checkbox"/> Wood collected 003 <input type="checkbox"/> Charcoal 004 <input type="checkbox"/> Crop Residue/Plant Biomass 005 <input type="checkbox"/> Animal Waste/Dung 006 <input type="checkbox"/> Coal Briquette 007 <input type="checkbox"/> Biomass Briquette 008 <input type="checkbox"/> Processed biomass (pellets)/woodchips 009 <input type="checkbox"/> Saw Dust 010 <input type="checkbox"/> Coal/lignite 011 <input type="checkbox"/> Garbage/plastic 555 <input type="checkbox"/> Other, specify</p>

H15_oth. Please specify "Other".	TEXT	h15autre
E h15.Contains(555)	.....

H. USE OF COOKING SOLUTIONS / COOKSTOVES Roster: %ROSTERTITLE%'S FUEL - generated by multi-select question h15		stove_fuel
E !h15.Contains(111)		

H16. In the last 12 months, how many times was the %rostartitle% available?	SINGLE-SELECT	h16
I Read options aloud	01 <input type="radio"/> Always available 02 <input type="radio"/> Mostly available 03 <input type="radio"/> Sometimes available 04 <input type="radio"/> Rarely available	

H17. How much time do household members spend preparing the %rostartitle% and fuel for each meal on average [including setting up the fuel and turning on the stove but excluding gathering fuel and cooking time]?	NUMERIC: INTEGER	h17
I Record in minutes V1 self > 0 && self <= 60 M1 Error: No more than one hour for preparation per meal.	.....

H18. In the past week, how many DAYS have you used the %rostartitle%?	NUMERIC: INTEGER	h18
I Record in hours V1 self.InRange(0,7) M1 Error: 7 days maximum	.....

H19. Over the past week, on average, how many TIMES PER DAY have you turned on the %rostartitle%?	NUMERIC: INTEGER	h19
I Record times per day W1 self.InRange(0,4) M1 Error: The number of times recorded seems too high.	.....

H20. In the last week, on average, how much time per day did household members use %rostartitle% to boil water (for washing, and drinking)?	NUMERIC: INTEGER	h20
I In minutes.	.....

STATIC TEXT

H.19 In the last week, on average, how much time per day did household members use %rostartitle% to cook or reheat meals (do not include boiling water) ...

H21. MORNING?	NUMERIC: INTEGER	h21
I Minutes V1 self.InRange(0,180) M1 Error: The number of minutes seems too high. Please correct	.....

H22. IN THE AFTERNOON?	NUMERIC: INTEGER	h22
I Minutes V1 self.InRange(0,180) M1 Error: The number of minutes seems too high. Please correct	.....

<p>H23. IN THE EVENING?</p> <p>I Minutes V1 self.InRange(0,180) M1 Error: The number of minutes seems too high. Please correct</p>	<p>NUMERIC: INTEGER h23</p> <p>-----</p>
<p>H24. In the last 12 months, what kind of illness/injury has your household been exposed to as a result of this %rostartitle%?</p> <p>I Multiple responses possible V1 self.ContainsOnly(9) || !self.Contains(9) M1 Error: Cannot select "None" with any other type of damage. Please correct.</p>	<p>MULTI-SELECT h24</p> <p>01 <input type="checkbox"/> Death or permanent damage 02 <input type="checkbox"/> Burns/fire/poisoning 03 <input type="checkbox"/> Severe cough/respiratory problem 04 <input type="checkbox"/> Other major injury 05 <input type="checkbox"/> Minor injury 06 <input type="checkbox"/> Fire with no injury 07 <input type="checkbox"/> Itchy/watery eyes 08 <input type="checkbox"/> Light cough 09 <input type="checkbox"/> None</p>
<p>H25. What is the cause of this injury/accident?</p> <p>E !h24.Contains(9)</p>	<p>SINGLE-SELECT h25</p> <p>001 <input type="radio"/> Negligence or error 002 <input type="radio"/> Problem with the fireplace 003 <input type="radio"/> The fireplace gives off a lot of smoke 555 <input type="radio"/> Other, specify</p>
<p>H25_oth. Please specify "Other"</p> <p>E h25==555</p>	<p>TEXT h25autre</p> <p>-----</p>
<p>H26. Is this %rostartitle% your main cookstove for cooking meals?</p> <p>I The main cookstove can be the one used most times to prepare meals. V1 (self==1 && cookstoves.Count(x=>x.h26==1)==1) || self!=1 M1 There can only be one MAIN cookstove. Please check your previous answers for this question.</p>	<p>SINGLE-SELECT h26</p> <p>01 <input type="radio"/> Yes 02 <input type="radio"/> No</p>
<p>H27. Why is this %rostartitle% not your main stove?</p> <p>I List up to 2 reasons by order of importance (main reason first) E h26 == 2</p>	<p>MULTI-SELECT: ORDERED h27</p> <p>001 <input type="checkbox"/> Electricity/fuel for this stove unavailable 002 <input type="checkbox"/> Fuel (or electricity) for this stove too expensive 003 <input type="checkbox"/> Certain type of cooking is not possible with this stove 004 <input type="checkbox"/> Cookstove does not have enough burners 005 <input type="checkbox"/> Cookstove flame is too weak 006 <input type="checkbox"/> Stove takes a long time to cook food 007 <input type="checkbox"/> Fuel (or electricity) takes a long time to prepare 008 <input type="checkbox"/> Stove is difficult/inconvenient to use 009 <input type="checkbox"/> I prefer another cookstove but the fuel (or electricity) for that stove is too expensive or often not available 010 <input type="checkbox"/> Certain type of meals taste better with another stove 555 <input type="checkbox"/> Other, specify</p>
<p>H27_oth. Please specify "Other"</p> <p>E h27.Contains(555)</p>	<p>TEXT h27autre</p> <p>-----</p>

VARIABLE cookstoves.Any(x=>x.h13.InList(1,2,3) && x.h15.ContainsAny(1,2,3,4,5,6,7,8,9,10,11))	BOOLEAN	h29
--	---------	-----

H. USE OF COOKING SOLUTIONS
SPACE USED FOR COOKING

E h29 == true

STATIC TEXT

Enumerator: Estimate the size of the cooking space using a ribbon or a stick of 1 meter.

H30. Do you have electricity in your kitchen (cooking area)?	SINGLE-SELECT 01 <input type="radio"/> Yes 00 <input type="radio"/> No	h30
--	--	-----

H31. Note the approximate shape of the cooking space?	SINGLE-SELECT 01 <input type="radio"/> Roughly square 02 <input type="radio"/> Roughly rectangular 03 <input type="radio"/> Roughly circular	h31
---	---	-----

STATIC TEXT

E h31.InList(1,2,3)

ENUMERATOR: Record the dimensions of the cooking space

H32a. Square: <u>measure only one side of the space</u> I In meter E h31==1	NUMERIC: DECIMAL -----	h32a
---	-------------------------------	------

H32b. Rectangle: <u>measure the first sides of the space</u> I In meter E h31==2	NUMERIC: DECIMAL -----	h32b
--	-------------------------------	------

H32c. Rectangle: <u>measure the second sides of the space</u> I In meter E h31==2	NUMERIC: DECIMAL -----	h32c
---	-------------------------------	------

H32d. Circle: <u>note diameter</u> I In meter E h31==3	NUMERIC: DECIMAL -----	h32d
--	-------------------------------	------

H30. Record the type of roof covering the cooking space E h31.InList(1,2,3)	SINGLE-SELECT 01 <input type="radio"/> Flat 02 <input type="radio"/> Roughly conical 03 <input type="radio"/> Gable (triangular cross-section) 04 <input type="radio"/> None of the above	h33
--	---	-----

H31. Record the height of the highest point of the ceiling using the one-meter rod. I In meter E h31.InList(1,2,3)	NUMERIC: DECIMAL -----	h34
--	-------------------------------	-----

H32. How many doors and windows (opening to the outside) does the cooking space have?

I Number of openings
E `h31.InList(1,2,3)`

NUMERIC: INTEGER

h35

I. HOUSEHOLD FUEL CONSUMPTION

E cons==1 && a1.Length>=1

STATIC TEXT

ENUMERATOR: The respondent must be the member of the household who cooks most often for the household.

I1. **ENUMERATOR**: Select the respondent for this section

SINGLE-SELECT: LINKED

i1

F \$minAgeHH && a9!=6
 V1 self == h1
 M1 The respondent should be the household member who most frequently cooks food for the household as identified in H1.

I2. In the last 12 months, did your household use ...

MULTI-SELECT: YES/NO

i2

I Read aloud
 V1 !(self.Missing.Any())
 M1 Warning: Please answer yes or no to each item before moving on.

- 001 / Wood Purchased
- 002 / Wood Collected
- 003 / Charcoal
- 004 / Crop Residue/ Plant Biomass
- 005 / Animal waste/ Dung
- 006 / Coal Briquette
- 007 / Biomass briquettes
- 008 / Processed biomass (pellets)/wood chips
- 009 / Sawdust / sawdust
- 010 / Coal / lignite
- 011 / Garbage /plastic
- 012 / LPG/ cooking gas
- 013 / Biogaz
- 014 / Kérosène
- 015 / Petrol / Diesel
- 016 / Electricity

[And 4 other symbols \[10\]](#)

I2_oth. Please specify "Other".

TEXT

i2autre

E i2.Yes.Contains(555)

I. HOUSEHOLD FUEL CONSUMPTION

Roster: FUEL TYPE

generated by multi-select question i2

fuel_consumption

I3. In the past 12 months, what activity has your household used %rostertitle% for?

MULTI-SELECT: YES/NO

i3

I ENUMERATOR: Read aloud all the options.
 F @optioncode==7? @rowcode == 16: true

- 001 / LIGHTING
- 002 / COOKING
- 003 / HEATING
- 004 / COOLING
- 005 / FIRE STARTER/ IGNITION
- 006 / BOILING WATER
- 007 / HOME-BASED INCOME ACTIVITY
- 555 / OTHER, SPECIFY

<p>I3_oth.Please specify "Other".</p> <p>E i3.Yes.Contains(555)</p>	<p>TEXT i3autre</p> <p>-----</p>
<p>I11. In the last 12 months, how many months did you use this %rosteritle%?</p> <p>I Number of months</p> <p>E !@rowcode.InList(14,16)</p> <p>V1 self.InRange(0,12)</p> <p>M1 Error: The number of months must be less than or equal to 12. Please correct</p>	<p>NUMERIC: INTEGER i11</p> <p>-----</p>
<p>I12. In the last 12 months, in which months was this %rosteritle% scarce and significantly more expensive?</p> <p>I Multiple responses possible.</p> <p>E !@rowcode.InList(11,13,15,16,18)</p> <p>V1 self.ContainsOnly(111) || !self.Contains(111)</p> <p>M1 Error: Cannot select both "Never" and another option. Please correct</p>	<p>MULTI-SELECT i12</p> <p>001 <input type="checkbox"/> January</p> <p>002 <input type="checkbox"/> February</p> <p>003 <input type="checkbox"/> March</p> <p>004 <input type="checkbox"/> April</p> <p>005 <input type="checkbox"/> May</p> <p>006 <input type="checkbox"/> June</p> <p>007 <input type="checkbox"/> July</p> <p>008 <input type="checkbox"/> August</p> <p>009 <input type="checkbox"/> September</p> <p>010 <input type="checkbox"/> October</p> <p>011 <input type="checkbox"/> November</p> <p>012 <input type="checkbox"/> December</p> <p>111 <input type="checkbox"/> Never</p>
<p>I13. What unit do you purchase/collect %rosteritle% in?</p> <p>E !@rowcode.InList(11,16,18)</p>	<p>SINGLE-SELECT i13</p> <p>001 <input type="radio"/> Kg</p> <p>002 <input type="radio"/> Litre</p> <p>555 <input type="radio"/> Other, specify</p>
<p>I13_oth. Please specify "Other"</p> <p>E i13==555</p>	<p>TEXT i13autre</p> <p>-----</p>
<p>I14. How often do you or a household member purchase/collect %rosteritle%?</p> <p>E !@rowcode.InList(11,13,16,18)</p>	<p>SINGLE-SELECT i14</p> <p>001 <input type="radio"/> Daily</p> <p>002 <input type="radio"/> Twice a week</p> <p>003 <input type="radio"/> Weekly</p> <p>004 <input type="radio"/> Every two weeks</p> <p>005 <input type="radio"/> Monthly</p> <p>006 <input type="radio"/> Every two months</p> <p>007 <input type="radio"/> Every three months</p> <p>008 <input type="radio"/> Every six months</p> <p>555 <input type="radio"/> Other, specify</p>
<p>I14_oth. Please specify "Other"</p> <p>E i14==555</p>	<p>TEXT i14autre</p> <p>-----</p>
<p>I15. How much %rosteritle% do you buy or collect, each time?</p> <p>I Quantity</p> <p>E !@rowcode.InList(2,11,15,16,18)</p>	<p>NUMERIC: INTEGER i15</p> <p>-----</p>

I16. How much Fbu on average do you pay for the amount of %rostartitle% that you purchase each time?

NUMERIC: DECIMAL

i16

- I In Burundian Franc
- E i15>0
- V1 se1f>0
- M1 Error: Must be greater than 0.
- V2 \$multiplde5
- M2 Error: This amount does not appear to be in Burundian Franc. Please check.

I. HOUSEHOLD FUEL CONSUMPTION

Roster: PEOPLE

generated by fixed list

time_collecting

- 01 Women (Age 15yrs and older)
- 02 Girls (Under age 15yrs)
- 03 Men (Age 15yrs and older)
- 04 Boys (Under age 15yrs)

E i2.Yes.ContainsAny(1,2,3,4,5,6,7,8,9,10,11,12,12,14,15,17) && (@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) : @rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5<15) : @rowcode==3 ? membr [And 82 other symbols \[1\]](#)

I17. In a typical day, how many minutes in total do %rostartitle% spend gathering, collecting or purchasing fuels for the household and home-based income generating activities including travel time?

NUMERIC: INTEGER

i17

- I Enumerator: Add up the number of minutes that all members (of this age and gender category) spend per day.

I18. How often does %rostartitle% collect fuels?

SINGLE-SELECT

i18

- E i17>0

- 001 Daily
- 002 Weekly
- 003 Every two weeks
- 004 Monthly
- 555 Other, specify

I18_oth. Please specify "Other"

TEXT

i18autre

- E i18==555

.....

I19. In a typical day, how many minutes in total do %rostartitle% spend on fuel preparation (i.e. combined time of chopping wood, igniting wood for starter, turning on the stove)?

NUMERIC: INTEGER

i19

- I Enumerator: Add up the number of minutes that all members (of this age and gender category) spend per day.

J. SPACE AND WATER HEATING

E cons==1 && a1.Length>=1

<p>J1. Do you heat water for washing (either for washing dishes and clothes or for bathing)?</p>	SINGLE-SELECT	j1
	<p>01 <input type="radio"/> Yes 00 <input type="radio"/> No</p>	
<p>J2. What is the main stove you use to heat water?</p>	SINGLE-SELECT	j2
E j1 == 1	<p>001 <input type="radio"/> Electric heater/boiler 002 <input type="radio"/> Electric kettle/coil 003 <input type="radio"/> Electric stove 004 <input type="radio"/> Piped Natural Gas stove 005 <input type="radio"/> LPG/cooking gas stove 006 <input type="radio"/> Solar water heater 007 <input type="radio"/> Kerosene stove 008 <input type="radio"/> Same solid fuel stove used for cooking 009 <input type="radio"/> Separate solid fuel stove 555 <input type="radio"/> Other, specify</p>	
<p>J2_oth. Please specify "Other".</p>	TEXT	j2autre
E j2==555	.....
<p>J3. What is the MAIN fuel you use in this stove %d2%?</p>	SINGLE-SELECT	j3
E j2 == 9	<p>001 <input type="radio"/> Firewood 002 <input type="radio"/> Charcoal 003 <input type="radio"/> Animal Waste/Dung 004 <input type="radio"/> Crop Residue/Plant Biomass 005 <input type="radio"/> Saw Dust 006 <input type="radio"/> Coal Briquette 007 <input type="radio"/> Biomass Briquette 008 <input type="radio"/> Processed biomass (pellets)/ woodchips 009 <input type="radio"/> Garbage/plastic 555 <input type="radio"/> Other, specify</p>	
<p>J3_oth. Please specify "Other".</p>	TEXT	j3autre
E j3==555	.....

K. WILLINGNESS TO PAY FOR AN IMPROVED COOKSTOVE

E cons==1 && h4.ContainsAny(1,2,3,4,5,6,7,8,9,10,11,12,13,14,15)

STATIC TEXT

ENUMERATOR: *The respondent must be the most knowledgeable member about electricity in the household.*

<p>K0. Enumerator: Record Respondent ID for this section</p> <p>F \$minAgeHH V1 IsAnswered(h1) ? self == h1 : true M1 The respondent should be the main cook of the household (i.e. the household member who most frequently cooks food for the household), as identified in H1</p>	<p>SINGLE-SELECT: LINKED k0</p>
<p>VARIABLE new [] { 0.33, 0.66, 1}[(int)Math.Floor(Quest.IRnd()*3)]</p>	<p>DOUBLE random_perc_k</p>
<p>K1. In the last 12 months, which fuel have you used most for cooking, more charcoal or more wood (or other solid fuels, e.g. agricultural waste).</p> <p>I Read options aloud</p>	<p>SINGLE-SELECT k1</p> <p>01 <input type="radio"/> Used more charcoal 02 <input type="radio"/> Used more fuel wood or other solid fuels (agricultural waste, etc.) 03 <input type="radio"/> HH does not use any solid biomass (no charcoal, fuelwood or crop residues)</p>

STATIC TEXT

E k1 == 1

CHARCOAL USERS

K. WILLINGNESS TO PAY FOR AN IMPROVED COOKSTOVE
ICS 2 : FOYER KAMARO/BIIKIGITI MÉTALLIQUE

Kamaro_Biikigiti

E k1 == 1

STATIC TEXT

Enumerator: Read aloud

I will now ask you some questions about an improved cookstove, the [Kamaro or Metallic Biikigiti cookstove](#). Here is the photo [\[Enumerator: show photo\]](#). This is a cookstove that significantly reduces smoke and the amount of charcoal needed for cooking. It is also possible that the time it takes to cook a meal is reduced. The lifespan of this cookstove is at least 2 years.

When answering the next questions, keep in mind the benefits of this cookstove as well as your household budget.



VARIABLE 15000	LONG	charc_full_price1
VARIABLE (long)Math.Round((decimal)(random_perc_k * charc_full_price1)/10)*10	LONG	charcoal_ics1_price
STATIC TEXT		
< font color="blue">: The random price is %charcoal_ics2_price%		
K3_ics2. Would you be willing to purchase this cookstove at %charcoal_ics2_price% Fbu?	SINGLE-SELECT	k3_ics1
	01 <input type="radio"/> Yes	
	02 <input type="radio"/> No	
K4_ics2. Would you be willing to pay %charcoal_ics2_price% Fbu for this cookstove, if you were given 6 months to make the payment?	SINGLE-SELECT	k4_ics1
E k3_ics1==2	001 <input type="radio"/> Yes	
	002 <input type="radio"/> No	
	888 <input type="radio"/> Don't Know	
K5_ics2. Would you be willing to pay %charcoal_ics2_price% Fbu for this cookstove, if you were given 12 months to make the payment?	SINGLE-SELECT	k5_ics1
E k4_ics1.InList(2,888)	001 <input type="radio"/> Yes	
	002 <input type="radio"/> No	
	888 <input type="radio"/> Don't Know	
K6_ics2. Would you be willing to pay %charcoal_ics2_price% Fbu for this cookstove, if you were given 24 months to make the payment?	SINGLE-SELECT	k6_ics1
E k5_ics1.InList(2,888)	001 <input type="radio"/> Yes	
	002 <input type="radio"/> No	
	888 <input type="radio"/> Don't Know	
K7_ics2. Why would you not accept the offer?	SINGLE-SELECT	k7_ics1
E k6_ics1.InList(2,888)	001 <input type="radio"/> Cannot afford the payment	
	002 <input type="radio"/> I already have electricity to meet my needs	
	003 <input type="radio"/> Maintenance/servicing of device is not available	
	555 <input type="radio"/> Other, specify	

K7_ics2_oth. Please specify "Other".

TEXT

k7_ics1autre

E k7_ics1==555

STATIC TEXT

FUELWOOD USERS

K. WILLINGNESS TO PAY FOR AN IMPROVED COOKSTOVE
ICS 3 : BURN/ENVIROFIT COOKSTOVE WITH WOOD

burn_envirofit_bois

E k1 == 2 && (random_perc_k==0.33 || random_perc_k==1)

STATIC TEXT

Enumerator: Read aloud.

*I will now ask you some questions about an improved cookstoves, the **Burn or Envirofit** cookstove used with wood. Here is the photo [EnumeratorL show photo]. This is a high-quality cookstove, which significantly reduces smoke and the amount of fuel needed for cooking. The time it takes to cook a meal is also reduced considerably. It is a durable cookstove with a lifespan of at least 3 years and with a warranty, easy to turn on and clean. It is also safer than traditional cookstoves.*

When answering the next questions, keep in mind the benefits of this cooking fireplace as well as your household budget.



VARIABLE
100000

LONG

charc_full_price2

VARIABLE
(Long)Math.Round((decimal)(random_perc_k * charc_full_price2)/10)*10

LONG

charcoal_ics2_price

STATIC TEXT

< font color="blue">: The random price is %charcoal_ics3_price%

K3_ics3. Would you be willing to purchase this cookstove at %charcoal_ics3_price% FBu?

SINGLE-SELECT

k3_ics2

01 Yes

02 No

K4_ics3. Would you be willing to pay %charcoal_ics3_price% FBu for this cookstove, if you were given 6 months to make the payment?

SINGLE-SELECT

k4_ics2

001 Yes

002 No

888 Don't Know

E k3_ics2==2

<p>K5_ics3. Would you be willing to pay %charcoal_ics3_price% Fbu for this cookstove, if you were given 12 months to make the payment?</p> <p>E k4_ics2.InList(2,888)</p>	<p>SINGLE-SELECT k5_ics2</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> No</p> <p>888 <input type="radio"/> Don't Know</p>
<p>K6_ics3. Would you be willing to pay %charcoal_ics3_price% Fbu for this cookstove, if you were given 24 months to make the payment?</p> <p>E k5_ics2.InList(2,888)</p>	<p>SINGLE-SELECT k6_ics2</p> <p>001 <input type="radio"/> Yes</p> <p>002 <input type="radio"/> No</p> <p>888 <input type="radio"/> Don't Know</p>
<p>K7_ics3. Why would you not accept the offer?</p> <p>E k6_ics2.InList(2,888)</p>	<p>SINGLE-SELECT k7_ics2</p> <p>001 <input type="radio"/> Cannot afford the payment</p> <p>002 <input type="radio"/> I already have electricity to meet my needs</p> <p>003 <input type="radio"/> Maintenance/servicing of device is not available</p> <p>555 <input type="radio"/> Other, specify</p>
<p>K7_ics3_oth. Please specify "Other".</p> <p>E k7_ics2==555</p>	<p>TEXT k7_ics2autre</p> <p>.....</p>

K. WILLINGNESS TO PAY FOR AN IMPROVED COOKSTOVE
ICS 4 : FOYER (ILF) CANARUMWE CÉRAMIQUE Canarumwe_Ceramique

E k1 == 2 && random_perc_k==0.66

STATIC TEXT

Enumerator: Please read aloud.

I will now ask you some questions about an improved cookstove, the cookstove [ILF Canarumwe Ceramic](#). Here is the photo [\[Enumerator: show photo\]](#). This is a cookstove that significantly reduces smoke and the amount of fuel needed for cooking. It is also possible that the time it takes to cook a meal is reduced. The lifespan of this fireplace is 1 or 2 years. When answering the next questions, keep in mind the benefits of this cookstove as well as your household budget.



<p>VARIABLE (Long)Math.Round((decimal)(random_perc_k * 11000)/10)*10</p>	<p>LONG charcoal_ics3_price</p>
---	--

STATIC TEXT

< font color="blue">: The random price is [%charcoal_ics3_price%](#)

<p>K3_ics3. Would you be willing to purchase this cookstove at %charcoal_ics3_price% Fbu?</p>	<p>SINGLE-SELECT k3_ics3 01 <input type="radio"/> Yes 02 <input type="radio"/> No</p>
<p>K4_ics3. Would you be willing to pay %charcoal_ics3_price% Fbu for this cookstove, if you were given 6 months to make the payment?</p> <p>E k3_ics3==2</p>	<p>SINGLE-SELECT k4_ics3 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't Know</p>
<p>K5_ics3. Would you be willing to pay %charcoal_ics3_price% Fbu for this cookstove, if you were given 12 months to make the payment?</p> <p>E k4_ics3.InList(2,888)</p>	<p>SINGLE-SELECT k5_ics3 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't Know</p>
<p>K6_ics3. Would you be willing to pay %charcoal_ics3_price% Fbu for this cookstove, if you were given 24 months to make the payment?</p> <p>E k5_ics3.InList(2,888)</p>	<p>SINGLE-SELECT k6_ics3 001 <input type="radio"/> Yes 002 <input type="radio"/> No 888 <input type="radio"/> Don't Know</p>
<p>K7_ics3. Why would you not accept the offer?</p> <p>E k6_ics3.InList(2,888)</p>	<p>SINGLE-SELECT k7_ics3 001 <input type="radio"/> Cannot afford the payment 002 <input type="radio"/> I already have electricity to meet my needs 003 <input type="radio"/> Maintenance/servicing of device is not available 555 <input type="radio"/> Other, specify</p>
<p>K7_ics3_oth. Please specify "Other".</p> <p>E k7_ics3==555</p>	<p>TEXT k7_ics3autre </p>

L. TIME USE

E cons==1 && a1.Length>=1

STATIC TEXT

< font color="blue" >ENUMERATOR: For each question, add up the total number of minutes spent per day for all individuals in each age category and gender.

L0. Repsondent	SINGLE-SELECT: LINKED	10
F \$minAgeHH		

L. TIME USE

Roster: TIME USE

generated by fixed list

time_use

01 Women (Age 15yrs and older)

02 Girls (Under age 15yrs)

03 Men (Age 15yrs and older)

04 Boys (Under age 15yrs)

E (@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) : @rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5<15) : @rowcode==3 ? membre_details.Any(x=>x.a3==1 && x.a5>=15) : membre_details.Any(x=>x [And 19 other symbols \[2\]](#))

STATIC TEXT

In a typical day, how many total minutes did [%rostartitle%](#) spend for...

L1. Fuel and stove preparation along with cooking meals (not including fuel acquisition and boiling water)	NUMERIC: INTEGER	11
I Minutes	-----	
L2. Using space heaters (including time spent for starting the heater and time spent near it for warmth)	NUMERIC: INTEGER	12
I Minutes	-----	
L3. Caring, attending, or playing with/for younger children	NUMERIC: INTEGER	13
I Minutes	-----	
L4. Helping children with school work	NUMERIC: INTEGER	14
I Minutes	-----	
L5. Working outside of the house (for pay and/or self-employed)	NUMERIC: INTEGER	15
I Minutes	-----	
L6. Time spent on entertainment and socializing	NUMERIC: INTEGER	16
I Minutes	-----	
L7. Reading or studying for oneself	NUMERIC: INTEGER	17
I Minutes	-----	

L8. Watching TV or listening to the radio for news and information

I Minutes

NUMERIC: INTEGER

18

L9. Watching TV or listening to the radio for entertainment

I Minutes

NUMERIC: INTEGER

19

M. HEALTH IMPACTS

E cons==1 && a1.Length>=1

M0. Respondant	SINGLE-SELECT: LINKED	m0
F \$minAgeHH		

M. HEALTH IMPACTS

Roster: M. HEALTH IMPACTS

generated by fixed list

health_impacts

- 01 Women (Age 15yrs and older)
- 02 Girls (Under age 15yrs)
- 03 Men (Age 15yrs and older)
- 04 Boys (Under age 15yrs)
- 05 Young Children (Age 0-4 years)

E (@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) : @rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5.InRange(5,15)) : @rowcode==3 ? membre_details.Any(x=>x.a3==1 && x.a5>=15) : @rowcode==4 [And 89 other symbols \[3\]](#))

VARIABLE (@rowcode==1 ? membre_details.Count(x=>x.a3==2 && x.a5>=15) : @rowcode==2 ? membre_details.Count(x=>x.a3==2 && x.a5.InRange(5,15)) : @rowcode==3 ? membre_details.Count(x=>x.a3==1 && x.a5>=15) : @rowcode==4 And 99 other symbols [1])	LONG	num_group
--	------	-----------

STATIC TEXT

Enumerator: The number of %rosteritle% in this household is %num_group% people.

M1. What is the number of %rosteritle% in your household with an illness with a cough at any time in the last month? V1 self<=num_group M1 Error: This number may not exceed the total number of household members in the %rosteritle% category. Please correct	NUMERIC: INTEGER	m1
M2. Of the %rosteritle% who had an illness with a cough, how many went to see a doctor/clinic? E m1 > 0 V1 self<=m1 M1 Error: The number should be less than the total number of members with cough (%m1% people). Please correct.	NUMERIC: INTEGER	m2
M3. Of the %rosteritle% who had an illness with a cough, how many breathed faster than usual with short, rapid breaths or had difficulty breathing? E m1 > 0 V1 self<=m1 M1 Error: The number should be less than the total number of members with cough (%m1% people). Please correct.	NUMERIC: INTEGER	m3

<p>M4a. How many of those %roster% with short, rapid breaths or difficult breathing, experienced a problem <i>in the chest</i>?</p> <p>E m3 > 0 V1 self<=m3 || self==888 M1 Error: Cannot be greater than %m3% as indicated in Q3.</p>	<p>NUMERIC: INTEGER m4a</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>M4b. How many of those %roster% with short, rapid breaths or difficult breathing, experienced a <i>blocked or runny nose</i>?</p> <p>E m3 > 0 V1 self<=m3 || self==888 M1 Error: Cannot be greater than %m3% as indicated in Q3.</p>	<p>NUMERIC: INTEGER m4b</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>M4c. How many of those %roster% with short, rapid breaths or difficult breathing, experienced a problem the a problem <i>in the chest AND with stuffy or runny nose</i>?</p> <p>E m3 > 0 V1 self<=m3 || self==888 M1 Error: Cannot be greater than %m3% as indicated in Q3.</p>	<p>NUMERIC: INTEGER m4c</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>M4d. How many of those %roster% with short, rapid breaths or difficult breathing, experienced <i>other problems</i>?</p> <p>E m3 > 0 V1 self<=m3 || self==888 M1 Error: Cannot be greater than %m3% as indicated in Q3.</p>	<p>NUMERIC: INTEGER M04d</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
<p>M5. What is the number of %roster% in your household with eye irritation or eye problems in the last month?</p> <p>V1 self<=num_group M1 Error: Cannot be greater than the total number of members of the %roster% category. Please correct</p>	<p>NUMERIC: INTEGER m5</p> <p>-----</p>
<p>STATIC TEXT</p> <p><i>In the last 12 months, how many %roster% have undergone.....</i></p>	
<p>M6. Poisoning from liquid fuel</p> <p>V1 self<=num_group M1 Error: Cannot be greater than the total number of members of the %roster% category. Please correct</p>	<p>NUMERIC: INTEGER m6</p> <p>-----</p>
<p>M7. Burns related to cooking or heating or fuel</p> <p>V1 self<=num_group M1 Error: Cannot be greater than the total number of members of the %roster% category. Please correct</p>	<p>NUMERIC: INTEGER m7</p> <p>-----</p>
<p>M8. Of the burns related to fuel--how many required a visit to the clinic/hospital</p> <p>E m7>0 V1 self<=m7 M1 Error: Cannot be more that M7</p>	<p>NUMERIC: INTEGER m8</p> <p>-----</p>

M9. Back or neck problems from carrying fuel for cooking/heating?

NUMERIC: INTEGER

M09

V1 self<=num_group

M1 Error: Cannot be greater than the total number of members of the %rosteritle% category. Please correct

N. HOUSEHOLD ECONOMIC SHOCKS

E cons==1 && a1.Length>=1

<p>N0. Respondant</p> <p>F \$minAgeHH</p>	<p>SINGLE-SELECT: LINKED n0</p>
<p>N1. In the last 12 months, have you been affected by</p> <p>V1 !(self.Missing.Any())</p> <p>M1 Warning: Please answer yes or no to each item before moving on.</p>	<p>MULTI-SELECT: YES/NO n1</p> <p>001 <input type="checkbox"/> / <input type="checkbox"/> An income loss due to agriculture failure/loss (crop disease, livestock death, etc.) or non-agriculture/farm business failures</p> <p>002 <input type="checkbox"/> / <input type="checkbox"/> An income loss due to imprisonment, illness/injury, or death of economically active household member.</p> <p>003 <input type="checkbox"/> / <input type="checkbox"/> A loss of income due to the COVID-19 situation</p> <p>555 <input type="checkbox"/> / <input type="checkbox"/> Other, specify</p>
<p>N1_oth. Please specify "Other".</p> <p>E n1.Yes.Contains(555)</p>	<p>TEXT n1autre</p> <p>.....</p>
<p>N. HOUSEHOLD ECONOMIC SHOCKS Roster: SHOCKS generated by multi-select question n1 chocs</p>	
<p>N2. Who was affected by %rosteritle%?</p> <p>I Read options aloud</p>	<p>SINGLE-SELECT n2</p> <p>01 <input type="radio"/> Just this household</p> <p>02 <input type="radio"/> Family members outside HH</p> <p>03 <input type="radio"/> Several HHs in this village</p> <p>04 <input type="radio"/> Most or all HHs in this village</p> <p>05 <input type="radio"/> Several villages in this area</p>

O. CONSUMPTION / EXPENDITURE

E cons==1 && a1.Length>=1

STATIC TEXT

ENUMERATOR: *The Respondent should be the head of household (or the most the most knowledgeable member on household electricity). Concerted answers should be allowed.*

00. Record respondant F \$minAgeHH	SINGLE-SELECT: LINKED o0
---	---

O. CONSUMPTION / EXPENDITURE

CONSUMPTION (INCLUDE PRODUCTS PURCHASED, PRODUCED AND RECEIVED FREE OF CHARGE)

<p>O1. In the last 7 days has your household consumed ...?</p> <p>I Include all processed food products, not prepared by the household from raw ingredients. Include all meals purchased outside that are not prepared by the household.</p> <p>V1 !(self.Missing.Any())</p> <p>M1 Warning: Please answer yes or no to each item before moving on.</p>	<p>MULTI-SELECT: YES/NO o1</p> <p>01 <input type="checkbox"/> / <input type="checkbox"/> Cereals & cereal products (e.g.: rice, maize, wheat, flour, millet) and starchy staples (e.g.: cassava, plantain, yam, cocoyam)</p> <p>02 <input type="checkbox"/> / <input type="checkbox"/> Pulses & nuts (e.g.: beans, groundnuts, palm nuts, soy beans)</p> <p>03 <input type="checkbox"/> / <input type="checkbox"/> Milk & milk products (e.g.: powder, tinned, fresh)</p> <p>04 <input type="checkbox"/> / <input type="checkbox"/> Edible oil (e.g.: palm oil, groundnut oil, coconut oil)</p> <p>05 <input type="checkbox"/> / <input type="checkbox"/> Vegetables (e.g.: okra, tomato, onion, carrot, cabbage, garden egg) and Fruits (e.g.: bananas, coconut, pineapple, mango, orange, pawpaw)</p> <p>06 <input type="checkbox"/> / <input type="checkbox"/> Egg, & poultry</p> <p>07 <input type="checkbox"/> / <input type="checkbox"/> Meat and meat products</p> <p>08 <input type="checkbox"/> / <input type="checkbox"/> Fish (smoked/fresh)</p> <p>09 <input type="checkbox"/> / <input type="checkbox"/> Sugar & Salt</p> <p>10 <input type="checkbox"/> / <input type="checkbox"/> Other food items (e.g, pepper, salt, spices, butter, jam, bread, groundnut paste, processed foods, etc.)</p> <p>11 <input type="checkbox"/> / <input type="checkbox"/> Meals/food bought outside home</p> <p>12 <input type="checkbox"/> / <input type="checkbox"/> Beverages (e.g.: malt drinks, minerals, coffee/Lipton/Milo)</p> <p>13 <input type="checkbox"/> / <input type="checkbox"/> Alcohol, tobacco and cigarettes</p>
---	---

O. CONSUMPTION / EXPENDITURE / CONSUMPTION (INCLUDE PRODUCTS PURCHASED, PRODUCED AND RECEIVED FREE OF CHARGE)

Roster: CONSUMPTION

generated by multi-select question o1

food

<p>O1A. What is the value (in FBU) of %rostartitle% consumed by the household in the last week that was purchased?</p> <p>V1 self>0</p> <p>M1 Error: Must be greater than 0. Please correct</p> <p>V2 //L'on vérifie que le montant renseigné est un multiple de 5 ou ne sait pas \$multipleDe5</p> <p>M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: DECIMAL o1a</p> <p>-----</p> <p>SPECIAL VALUES</p> <p>888 Don't know</p>
--	---

<p>O1B. What is the value (in FBu) of %rostertitle% consumed by the household in the last week that was taken from its own production?</p> <p>V1 self>0 M1 Error: Must be greater than 0. Please correct V2 //L'on vérifie que le montant renseigné est un multiple de 5 ou ne sait pas \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: DECIMAL o1b</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
--	---

<p>O1C. What is the value (in FBu) of %rostertitle% consumed by the household in the last week that was received as a gift or donation?</p> <p>V1 self>0 M1 Error: Must be greater than 0. Please correct V2 //L'on vérifie que le montant renseigné est un multiple de 5 ou ne sait pas \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: DECIMAL o1c</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
---	---

O. CONSUMPTION / EXPENDITURE
MONTHLY EXPENDITURE ON GOODS AND SERVICES

<p>O2. In the last month how much did your household spend on...</p> <p>V1 !(self.Missing.Any()) M1 Warning: Please answer yes or no to each item before moving on.</p>	<p>MULTI-SELECT: YES/NO o2</p> <p>01 <input type="checkbox"/> / <input type="checkbox"/> Medical/pharmacy expenses (e.g.: tablets/syrups, insecticide, condoms, pharmacy/chemist, traditional/herbal medicine)</p> <p>02 <input type="checkbox"/> / <input type="checkbox"/> Soaps, disinfectants and cleaning supplies; cosmetics and toiletries</p> <p>03 <input type="checkbox"/> / <input type="checkbox"/> Water supply for drinking and other uses ((tanker services, pipe-borne, metered, bore-hole, well, purchased water))</p> <p>04 <input type="checkbox"/> / <input type="checkbox"/> Mobile phone top-up or bills</p> <p>05 <input type="checkbox"/> / <input type="checkbox"/> Internet, land phone, dish, cable, and other household communication</p> <p>06 <input type="checkbox"/> / <input type="checkbox"/> House Rent</p> <p>07 <input type="checkbox"/> / <input type="checkbox"/> Transportation costs (fuel for own vehicles, cost of public transportation, buses, taxis)</p> <p>23 <input type="checkbox"/> / <input type="checkbox"/> Other recurring monthly expenditure (wage of domestic workers, entertainment, etc.)</p>
--	---

<p>O2_oth. Please specify "Other"</p> <p>E o2.Yes.Contains(555)</p>	<p>TEXT o2autre</p> <p>-----</p>
---	---

O. CONSUMPTION / EXPENDITURE / MONTHLY EXPENDITURE ON GOODS AND SERVICES
Roster: MONTHLY EXPENDITURE
generated by multi-select question o2

nonfood_1mon

<p>O3. How much did your household spend in the last month to %rostertitle%?</p> <p>V1 self>=0 M1 Error: Must be greater than 0. Please correct V2 //L'on vérifie que le montant renseigné est un multiple de 5 ou ne sait pas \$multipleDe5 M2 Error: This amount does not appear to be in Burundian Franc. Please check.</p>	<p>NUMERIC: DECIMAL o3</p> <p>-----</p> <p>SPECIAL VALUES 888 Don't know</p>
---	--

O. CONSUMPTION / EXPENDITURE
ANNUAL EXPENDITURE ON GOODS AND SERVICES

O2. In the last 12 months how much did your household spend on...

V1 !(self.Missing.Any())

M1 Warning: Please answer yes or no to each item before moving on.

MULTI-SELECT: YES/NO

o4

- 008 / School fees and other educational expenses Include uniform, PTA dues, books, tutor, school supplies, transport, food, etc.
- 009 / Clothing, shoes, and accessories
- 010 / Celebrations (e.g. funerals and expenses, weddings, festivals, naming ceremony, engagement). Only include costs to host celebration or to give donations/gifts for attending celebrations.
- 011 / Gifts and donations (e.g.: donation to church made by the household, tithes). Only include gifts and donations not already included in Q.25
- 012 / Hospital/Doctor visits and Diagnostic tests (e.g.: consultations at private hospital, public hospital, traditional healer) and medicines (Do not include costs paid for by insurance)
- 013 / Furniture (e.g.: mattresses, room furniture, furnishing items, floor mats, carpets)
- 014 / Purchase, repair, maintenance, and building (e.g.: cement, roofing, paint, carpentry, labor for repairs, sewerage removal)
- 015 / Utensils & kitchen equipment (e.g.: cups, plates, cutleries, cooking pots, buckets)
- 016 / Electronics: TV, radio-cassette player, VCR/DVD, Cassettes, CDs, records, satellite TV, MP3 player, video game player, pen drives, other digital accessories; Computer or laptop purchase
- 017 / Appliances & tools (e.g.: electric iron, electric fans, refrigerators, lanterns, brooms)
- 018 / Vehicles & motorcycle & bicycle (purchase or repair of own car/moto/ car battery)
- 019 / Transfer of money to family members and parents
- 020 / Losses due to theft, robbery, accidents, natural disasters, etc.
- 021 / Body beauty treatments (hairdressing, braiding, etc.)
- 555 / Other significant expenses not yet covered (specify)

O4_oth. Please specify "Other"

TEXT

o4autre

E o4.Yes.Contains(555)

O. CONSUMPTION / EXPENDITURE / ANNUAL EXPENDITURE ON GOODS AND SERVICES

Roster: ANNUAL EXPENDITURE

generated by multi-select question o4

nonfood_1year

O5. How much did your household spend in the last month to %rosteritle%?

NUMERIC: DECIMAL

o5

SPECIAL VALUES

888 Don't know

V1 self>=0

M1 Error: Must be greater than 0. Please correct

V2 //L'on vérifie que le montant renseigné est un multiple de 5 ou ne sait pas \$multipleDe5

M2 Error: This amount does not appear to be in Burundian Franc. Please check.

P. HOUSEHOLD LAND OWNERSHIP AND OTHER ASSETS

E cons==1 && a1.Length>=1

P0. Respondant	SINGLE-SELECT: LINKED	p0
F \$minAgeHH		

STATIC TEXT

Instruction: Enter the total values (in FBU) of following assets owned by the household. If some assets are owned by members, report aggregate values for all members. The Respondent should be the head of household.

P1. Does a member(s) of the household own any?	MULTI-SELECT: YES/NO	p1
I Read options aloud	01 <input type="checkbox"/> / <input type="checkbox"/> Agricultural land (including cultivated land, resting land, preparation land and others like land for animal food)	
V1 !(self.Missing.Any())	02 <input type="checkbox"/> / <input type="checkbox"/> Pastoral land (used to graze animals)	
M1 Warning: Please answer yes or no to each item before moving on.		

P. HOUSEHOLD LAND OWNERSHIP AND OTHER ASSETS

Roster: LAND

generated by multi-select question p1

land

P2. What is the unit the %rostertitle% is measured in?	SINGLE-SELECT	p2
	001 <input type="radio"/> Hectares	
	002 <input type="radio"/> Square metre	
	555 <input type="radio"/> Other, specify	

P2_oth. Please specify "Other"	TEXT	p2autre
E p2==555	.....

P3. What is the total area size of: %rostertitle%?	NUMERIC: DECIMAL	P03
E p2 != null	-----	
V1 self>0		
M1 Error: Area must be greater than 0. Correct.		

R. ATTITUDES

E cons==1 && a1.Length>=1

<p>VARIABLE c2 == 1 || c39 == 1</p>	<p>BOOLEAN q00</p>
<p>Q0. Respondent F \$minAgeHH</p>	<p>SINGLE-SELECT: LINKED q0</p>
<p>Q1. What electrical appliances would you like to use? I Select three responses</p>	<p>MULTI-SELECT q1</p> <p>001 <input type="checkbox"/> Fan 002 <input type="checkbox"/> Radio 003 <input type="checkbox"/> Television 004 <input type="checkbox"/> Refrigerator 005 <input type="checkbox"/> Tablet 006 <input type="checkbox"/> Computer 007 <input type="checkbox"/> Hair clipper 008 <input type="checkbox"/> Electric drill 009 <input type="checkbox"/> Electric saw 010 <input type="checkbox"/> Electric kitchen mill 011 <input type="checkbox"/> Smartphone 555 <input type="checkbox"/> Other, specify</p>
<p>Q1_oth. Please specify "Other". E q1.Contains(555)</p>	<p>TEXT q1autre</p> <p>.....</p>
<p>Q2. Why don't you have one of these devices yet? I Multiple responses possible.</p>	<p>MULTI-SELECT q2</p> <p>001 <input type="checkbox"/> Too expensive 002 <input type="checkbox"/> No products available 003 <input type="checkbox"/> Products require too much energy, can't power them with my system 555 <input type="checkbox"/> Other, specify</p>
<p>Q2_oth. Please specify "Other". E q2.Contains(555)</p>	<p>TEXT q2autre</p> <p>.....</p>
<p>Q3. How satisfied are you with the performance of the main source %c162%? I Read aloud these options.</p>	<p>SINGLE-SELECT q3</p> <p>01 <input type="radio"/> Very satisfied 02 <input type="radio"/> Somewhat satisfied 03 <input type="radio"/> Neutral 04 <input type="radio"/> Unsatisfied 05 <input type="radio"/> Very dissatisfied</p>

Q. WOMEN'S EMPOWERMENT

E cons==1 && membre_details.Any(x=>x.a3==2 && x.a5>=0)

<p>Enumerator: record the start time for this section.</p>	<p>DATE: CURRENT TIME T_start</p> <p>.....</p>
---	---

STATIC TEXT

Enumerator: The respondent should be the female head of household or the female spouse of the household head or a female adult member of the household.

<p>R0. Enumerator: Record Respondent for this section</p>	<p>SINGLE-SELECT: LINKED r0</p>
--	--

F a3==2 && \$minAgeHH

STATIC TEXT

DECLARATION OF MOBILITY
ENUMERATOR, read aloud

Can you do the following activities alone or do you need to be accompanied by your husband (or others)?
Mark who decides about each of the activities below.

<p>R1. Going to markets/banks/commercial centers/places of work..</p>	<p>SINGLE-SELECT r1</p> <p>001 <input type="radio"/> Can do herself</p> <p>002 <input type="radio"/> Can do with husband</p> <p>003 <input type="radio"/> Can do with others</p> <p>555 <input type="radio"/> Other Specify</p>
---	--

<p>R1_oth. Please specify "Other".</p>	<p>TEXT r1autre</p> <p>.....</p>
--	---

E r1 == 555

<p>R2.Going outside the village/residential area</p>	<p>SINGLE-SELECT r2</p> <p>001 <input type="radio"/> Can do herself</p> <p>002 <input type="radio"/> Can do with husband</p> <p>003 <input type="radio"/> Can do with others</p> <p>555 <input type="radio"/> Other, specify</p>
--	---

<p>R2other. Please specify other</p>	<p>TEXT r2autre</p> <p>.....</p>
--------------------------------------	---

E r2 == 555

Q. WOMEN'S EMPOWERMENT

ACCESS TO INFORMATION, ORGANIZATION MEMBERSHIP, VILLAGE ELECTRIFICATION COMMITTEE, CAPACITY BUILDING AND ACCESS TO FINANCE

<p>R3. Are you a member of women's group?</p>	<p>SINGLE-SELECT r3</p> <p>01 <input type="radio"/> Yes</p> <p>02 <input type="radio"/> No</p>
---	---

R4. Which type of group are you a member of/do you belong to?

I Multiple responses possible.
E r3 == 1

- MULTI-SELECT r4
- 001 Religious related activities
 - 002 Health care related activities
 - 003 Income generating activities
 - 004 Self-help organization
 - 005 Savings group
 - 006 Microfinance organization
 - 007 Cooperative
 - 008 Village administrative committee
 - 009 Village electrification committee
 - 555 Other, specify

R4_oth. Please specify "Other"

E r4.Contains(555)

TEXT r4autre
.....

R5. In your opinion, what are the main constraints women in the area face for participating in the groups or activities listed above?

I Multiple responses possible.

- MULTI-SELECT r5
- 001 Limited time
 - 002 Lack of support from family
 - 003 Limited confidence
 - 004 Limited education
 - 555 Other, specify

R5_oth. Please specify other

E r5.Contains(555)

TEXT r5autre
.....

R6. Is there a village electrification committee?

- SINGLE-SELECT r6
- 01 Yes
 - 02 No

R7. Are you a member of the village electrification committee?

E r6 == 1

- SINGLE-SELECT r7
- 01 Yes
 - 02 No

R8.How many times do you meet in a month?

E r7== 1
V1 se1f>=0
M1 Error: This number cannot be negative

NUMERIC: INTEGER r8

R9. Do you own a bank account?

I Read options aloud

- SINGLE-SELECT r9
- 01 No account
 - 02 Own account
 - 03 Joint account (with spouse)
 - 04 Joint account (with savings group)

Q. WOMEN'S EMPOWERMENT

Roster: ITEMS

generated by multi-select question f1

propr_i_biens

A10. Who in the household decided to buy the %rostertitle% that your household owns?

I Possible to select multiple members per appliance.
F \$minAgeHH

MULTI-SELECT: LINKED r10

END OF INTERVIEW

<p>0.23b. End date of the first visit</p>	<p>DATE: CURRENT TIME s00q23b</p> <p>.....</p>
<p>0.24b. End date of the second visit</p> <p>E s00q14!=nu11</p>	<p>DATE: CURRENT TIME s00q24b</p> <p>.....</p>
<p>0.25b. End date of the third visit</p> <p>E s00q15!=nu11</p>	<p>DATE: CURRENT TIME s00q25b</p> <p>.....</p>
<p>0.28. Language of interview</p>	<p>SINGLE-SELECT s00q28</p> <p>01 <input type="radio"/> Kirundi</p> <p>02 <input type="radio"/> French</p> <p>03 <input type="radio"/> English</p>
<p>0.27 Results of the questionnaire</p>	<p>SINGLE-SELECT s00q27</p> <p>01 <input type="radio"/> Completed</p> <p>02 <input type="radio"/> Household absent for a long period of time</p> <p>03 <input type="radio"/> Refused</p> <p>04 <input type="radio"/> Lodging vacant or no lodging at this address</p> <p>05 <input type="radio"/> Lodging destroyed</p> <p>06 <input type="radio"/> Lodging not found</p>

APPENDIX A — ENABLING CONDITIONS

[1] : PEOPLE

Enablement Condition:

```
i2.Yes.ContainsAny(1,2,3,4,5,6,7,8,9,10,11,12,12,14,15,17)
&&
(@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) :
@rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5<15) :
@rowcode==3 ? membre_details.Any(x=>x.a3==1 && x.a5>=15) :
membre_details.Any(x=>x.a3==1 && x.a5<15))
```

[2] : TIME USE

Enablement Condition:

```
(@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) :
@rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5<15) :
@rowcode==3 ? membre_details.Any(x=>x.a3==1 && x.a5>=15) :
membre_details.Any(x=>x.a3==1 && x.a5<15))
```

[3] : M. HEALTH IMPACTS

Enablement Condition:

```
(@rowcode==1 ? membre_details.Any(x=>x.a3==2 && x.a5>=15) :
@rowcode==2 ? membre_details.Any(x=>x.a3==2 && x.a5.InRange(5,15)) :
@rowcode==3 ? membre_details.Any(x=>x.a3==1 && x.a5>=15) :
@rowcode==4 ? membre_details.Any(x=>x.a3==1 && x.a5.InRange(5,15)) :
membre_details.Any(x=>x.a5<=4))
```

APPENDIX B — VALIDATION CONDITIONS AND MESSAGES

[1] a4: A4. What is the connection between `%rostertitle%` and the head of household?

Validation Condition:

```
/// This code checks that the head and his/her spouse are not of the same gender
self == 1 ?
(membre_details.Count(x=> x.a4==2 && ((x.a3) == (a3)))==0):

self == 2 ?
(membre_details.Count(x=> x.a4==1 && ((x.a3) == (a3)))==0):
true
```

Validation Message: It is unlikely that the head of household is of the same sex as his or her spouse. Please confirm.

Validation Condition:

```
/* Check household contains only one head */

// If the member is head of household then ...

self == 1 ?

/* ... he is the only one to have been declared as head of
household */

membre_details.Count(x => x.a4 == 1) == 1:

true
```

Validation Message: There must be one and only one head of household. Please confirm.

Validation Condition:

```
// if current person is head's child
self == 3 ?
membre_details.Count(x=> x.a4 == 1 && ((x.a5 - (a5) <= 12))) == 0 :

// if current person is head
self == 1 ?
membre_details.Count(x=> x.a4 == 3 && (a5 - x.a5 <= 12)) == 0 :
true
```

Validation Message: The age difference between the head and his child does not seem correct. Please check age and relationship.

Validation Condition:

```
/* =====
AGE DIFFERENCE BETWEEN PDM AND PARENT < 12 YEARS
===== */

// if head, no parent with age difference less than 12
self==1 ?
!membre_details.Any(x=>x.a4==10 && (x.a5-a5)<12) :

// if parent, no head with age difference less than 12
self==10 ?
!membre_details.Any(x=>x.a4==1 && (a5-x.a5)<12) :

// otherwise, OK
true
```

Validation Message: The age difference between the head and his parents does not seem to be correct. Please check age and relationship.

Validation Condition:

```
/* =====
AGE DIFFERENCE BETWEEN PDM'S SPOUSE AND PDM'S PARENTS >= 12 YEARS
===== */

// if spouse, no parent-in-law with age difference less than 12
self==2 ?
!membre_details.Any(x=>x.a4==11 && (x.a5-a5)<12) :

// if parent, no head with age difference less than 12
self==11 ?
!membre_details.Any(x=>x.a4==1 && (a5-x.a5)<12) :

// otherwise, OK
true
```

Validation Message: The age difference between the head's spouse and their parents does not seem to be correct. Please check age and relationship.

Validation Condition:

```
/* =====
AGE DIFFERENCE BETWEEN PDM AND GRANDCHILDREN >= 24 YEARS
===== */

// if head, no grandchildren with age difference less than 24
self==1 ?
!membre_details.Any(x=>x.a4==6 && (a5-x.a5)<24) :

// if grandchild, no head with age difference less than 24
self==6 ?
```

```
!membre_details.Any(x=>x.a4==1 && (x.a5-a5)<24) :
```

```
// otherwise, OK  
true
```

Validation Message: The age difference between the head and his grandchildren does not seem correct. Please check age and relationship.

Validation Condition:

```
/* Check that there is no woman in the household who has  
more than one husband.  
The audit will only focus on the women reported  
as head of household.  
*/
```

```
// If the head of the household is a woman then ....
```

```
membre_details.Count(x=> x.a3==2 && x.a4==1)==1?
```

```
//... she has at most one spouse
```

```
membre_details.Count(x=> x.a3==1 && x.a4==2)<=1:
```

```
true
```

Validation Message: Inconsistency. It is unlikely that a woman will be married to more than one man in the same household. Please check.

Validation Condition:

```
/* It is unlikely that a woman is head of household and  
that her husband lives in the household.  
So we check for any female head of household that she does not have  
spouse in the household  
*/
```

```
// If the member is spouse of the head of household then ....
```

```
a3==1 && a4==2 ?
```

```
// on vérifie qu'il n'y a aucune femme chef de ménage
```

```
membre_details.Count(x=> x.a3==2 && x.a4==1)==0:
```

```
//any other case is true
```

```
true
```

Validation Message: Inconsistency. It is unlikely that a woman will be head of household while her husband lives in the household. Please check.

Validation Condition:

```
// If the member is the HH head....  
@rowcode == 1 ?
```

```
// then the relationship must be 1==Head HH
```

```
(self == 1):  
//All case is true  
true
```

Validation Message: Inconsistency. This member is the head of HH. So his relationship the head is still HH head

[2] [c123: C123. In order of importance, what are the different solar systems you use?](#)

Validation Condition:

```
self.Contains(2)?  
self.Contains(1):
```

```
self.Contains(3)?  
self.Contains(2):
```

```
self.Contains(5)?  
self.Contains(4):
```

```
self.Contains(6)?  
self.Contains(5):
```

```
self.Contains(8)?  
self.Contains(7):
```

```
self.Contains(9)?  
self.Contains(8):
```

```
true
```

Validation Message: Error: Cannot select #2 if #1 has not been selected first. Similarly, cannot select #3 if #2 has not been selected first. Please verify.

[3] [c162: C163. Of all the sources that you mentioned above, which is the source that you use the most in your household?](#)

Validation Condition:

```
self==1?  
c2==1:
```

```
self==2?  
c39==1:
```

```
self==3?  
c78==1:
```

```
self==7?  
c101==1:
```

```
self==4?  
c122==1 && c123.ContainsAny(1,2,3):
```

```
self==5?  
c122==1 && c123.ContainsAny(4,5,6):
```

```
self==6?  
c122==1 && c123.ContainsAny(7,8,9):
```

true

Validation Message: Error: The respondent did not state above that he had this source. Please check and correct.

Validation Condition:

```
self.InList(8,111)?  
(c122!=1 && c101!=1 && c78!=1 && c39!=1 && c2!=1):  
true
```

Validation Message: Error: Cannot select "dry cell batteries" or "no electricity" when answer is YES to one of the questions C2, C39, C78, C101, C122. Please check.

APPENDIX C — CATEGORIES

- [1] [oui_non](#)
Categories: 1: OUI, 2: NON
- [2] [oui_non_nsp](#)
Categories: 1: OUI, 2: NON, 3: Ne Sait Pas
- [3] [s00q01: 0.01. Province](#)
Categories: 1: Bubanza, 2: Bujumbura Mairie, 3: Bujumbura Rural, 4: Bururi, 5: Cankuzo, 6: Cibitoke, 7: Gitega, 8: Karuzi, 9: Kayanza, 10: Kirundo, 11: Makamba, 12: Muramvya, 13: Muyinga, 14: Mwaro, 15: Ngozi, 16: Rumonge, 17: Rutana, 18: Ruyigi
- [4] [s00q12: 0.12. Enumerator name](#)
Categories: 1: Diomedee Nkenshima, 2: Jesus Marie Uwimana, 3: Diane Kaneza, 4: Brunel Bazikamwe, 5: Sebastien Ntiranyibagira, 6: Aline Karibwami, 7: Nestor Bayubahe, 8: Emmanuel Nibayubahe, 9: Eliane Hamenyimana, 10: Emmanuel Niyongabo, 11: Salvator Manirabarusha, 12: Seraphine Ndayirorere, 13: Estella Nininahazwe, 14: Chantal Gatore, 15: Ferdiinand Ntungumburanye, 16: Sophonie Ndayishimiye, 17: Eric Nduwimana, 18: Yvette Niyokindi, 19: Thierry Bukeyenzeza, 20: Frederic Nduwamungu, 21: Jean de Dieu Ndayishimiye, 22: Jean Majambere, 23: Niyo nizeye Arlette, 24: Nishemezwe Arnaud, 25: Jean Berchmas Ntirandekura, 26: Adelaide Ndayirukiye, 27: Sindayihebura Julien, 28: Kanyange Justine, 29: Thierry Nahishakiye, 30: Ninganza Nestor, 31: Alexis Kagamba, 32: Desire Karemewe, 33: Imelde Gasamuduri, 34: Egide Nkuriyigoma, 35: Augustin Niyongabo, 36: Seraphine Harushukuri, 37: Jean Marie Nsengiyumva, 38: Anne Marie Nkengurukiye, 39: Audifax Bancirimisi, 40: Bizimana Benoit, 41: Henriette Ndayisaba, 42: Ntaconayigize Francois, 43: Belyse Arakaza, 44: Fredence Bahuwihaye, 45: Rachelle Akimana, 46: Olivier Niyoyandemye, 47: Jean Bosco Nkundimana, 48: Constantin Nshimirimana, 49: Jean Claude Ndayikengurukiye, 50: Sylvestre Sindaruhuka, 51: Jean Bosco Nzeyimana, 52: Aime Mechack Buntu, 53: Jimmy Manirakiza, 54: Jeanine Ndizeye, 55: Prime Niyorukiza, 56: Rebecca Kezimana, 57: Jean Pierre Mbikibigero, 58: Charles Nzukobari, 59: Gerard Ndikumana, 60: Steve Niyongabo, 61: Delphin Mpawenayo, 62: Bienvenu Nkurunziza, 63: Violette Itangishaka, 64: Icoyitungiye Axel, 65: Serges Hatungimana, 66: Aimable Niyonkuru, 67: Euphémie Ntunzwenimana, 68: Evelyne Ndayikengurukiye, 69: Emmanuel Ngendakumana, 70: Muhoza Annick, 71: Innocent Niyonkuru, 72: Timothee Ndayikengurukiye, 73: Eric Tuyisenge, 74: Epiphane Ntunzwenimana, 75: egide mamimfashe, 80: Bernice Irakoze, 77: Jeanine Nzeyimana, 76: Hurbet Hangimana, 79: NIYONSABA Innocent, 81: Charles Ndayikeje, 82: Joyeuse Gloria Manishimwe
- [5] [a33: A33. Other than electricity, which other sources of energy do you also use for your enterprise?](#)
Categories: 1: LPG/cooking gas, 2: Wood purchased, 3: Wood collected, 4: Charcoal, 5: Kerosene, 6: Piped Natural Gas, 7: Coal/lignite, 8: Animal Waste/Dung, 9: Crop Residue/Plant Biomass, 10: Saw Dust, 11: Coal Briquette, 12: Biomass Briquette, 13: Processed biomass (pellets)/woodchips, 14: Biogas, 15: Ethanol, 16: Garbage/plastic, 17: Candles, 18: Diesel, 19: Gasoline, 111: None, 555: Other, specify
- [6] [b08: B8. The walls of the dwelling are mainly made of what material?](#)
Categories: 1: Wood and mud, 2: Wood and thatch, 3: Wood only, 4: Stone only, 5: Stone and mud, 6: Stone and cement, 7: Blocks, plastered with cement, 8: Blocks, unplastered, 9: Bricks, 10: Mud bricks (traditional), 11: Steel, 12: Cargo container, 13: Parquet or polished wood, 14: Chip wood, 15: Corrugated iron sheet, 16: Asbestos, 17: Reed/bamboo, 18: Plastic/canvas, 96: Other, specify
- [7] [c125b: C125b. What is the manufacturer and brand of this %rostertitle%/font>?](#)
Categories: 1: Pico Plus, 2: Pro 200, 3: Pro 300, 4: Pro 400, 5: Boom, 6: Home 60, 7: Home 120, 8: Home 400, 9: SunBell Smart, 10: Move Smart, 11: Start/start++, 12: SunTurtle, 13: Home 29, 14: Home 58, 15: A2, 16: S3, 17: S30, 18: S200, 19: T200, 20: S5000, 21: Go 150, 22: Go 250, 23: Go 255, 24: Connect 600, 25: Connect Li 1000, 26: Connect 2000, 27: Connect 3000, 28: Energy Kit, 29: Family Kit, 111: No model, 555: Other, specify, 888: Don't know
- [8] [f1: F1. Which of the following items in working condition does your household own?](#)
Categories: 1: Incandescent Light Bulb, 2: Fluorescent Tube, 3: Compact Fluorescent Light (CFL) Bulb, 4: LED Light Bulb, 5: Torch/flashlight/lantern (using dry-cell battery), 6: Torch/flashlight/lantern (rechargeable), 7: Smart Mobile Phone Charger (Internet Phone), 8: Classic mobile phone charger, 9: Radio/CD Players/sound system (using dry-cell battery), 10: Radio/CD players/sound system (without using dry-cell battery), 11: Black & White TV, 12: Typical Color TV, 13: Flat color TV, 14: Computer, 15: VCD/DVD, 16: Ventilateur, 17: Refrigerator, 18: Freezer, 19: Non-Electric Iron (charcoal-based), 20: Electric Iron, 21: Non-Electric sewing machine, 22: Electric sewing machine, 23: Internet Modem/Router, 24: Electric kitchen mill, 25: Electric household robot/blender, 26: Hairdryer, 27: Washing machine, 28: Indoor air cooler, 29: Air conditioner (AC), 30: Electric water heater (non-solar), 31: Solar water heater, 32: Electric rice cooker, 33: Electric kettle, 34: Microwave oven, 35: Electric water pump (non-solar), 36: Water pump (solar), 555: Other, specify
- [9] [h4: H4. In the last 12 months, which cookstove \(s\) did your household use for preparing meals \(including cooking, boiling water, baking or other purposes\)?](#)
Categories: 1: Three-stone fire, 2: Foyer ya Tsinga, 3: Thaf basket, 4: Double-tête, 5: Foyer Biikigiti céramique, 6: Foyer Biikigiti métallique, 7: Foyer fixe, 8: Foyer (ILF) Canarumwe céramique, 9: Nyayo (Thaf Basket amélioré), 10: Kamaro, 11: Foyer Congo, 12: Foyer Ya jante, 13: Foyer métallique, 14: Foyer Inyarwanda, 15: Foyer Onatour, 16: Biogaz stove, 17: LPG stove, 18: Electric stove, 555: Other, specify
- [10] [i2: I2. In the last 12 months, did your household use ...](#)
Categories: 1: Wood Purchased, 2: Wood Collected, 3: Charcoal, 4: Crop Residue/ Plant Biomass, 5: Animal waste/ Dung, 6: Coal Briquette, 7: Biomass briquettes, 8: Processed biomass (pellets)/wood chips, 9: Sawdust / sawdust, 10: Coal / lignite, 11: Garbage /plastic, 12: LPG/ cooking gas, 13: Biogaz, 14: Kérosène, 15: Petrol / Diesel, 16: Electricity, 17: Ethanol, 18: Solar, 19: Gaz naturel canalisé, 555: Other, specify

APPENDIX D — VARIABLES

[1] `num_group`:

```
(@rowcode==1 ? membre_details.Count(x=>x.a3==2 && x.a5>=15) : @rowcode==2 ? membre_details.Count(x=>x.a3==2 && x.a5.InRange(5,15))  
: @rowcode==3 ? membre_details.Count(x=>x.a3==1 && x.a5>=15) : @rowcode==4 ? membre_details.Count(x=>x.a3==1 && x.a5.InRange(5,15)):  
membre_details.Count(x=>x.a5<=4))
```

APPENDIX E — CATEGORIES FILTERS

- [1] [c125b: C125b. What is the manufacturer and brand of this %rosteritle%?](#)
c125a==1? @optioncode.InList(1,2,3,4,5,6,7,8,555,888): c125a==2? @optioncode.InList(9,10,11,12,13,14,555,888): c125a==3?
@optioncode.InList(15,16,17,18,19,20,555,888): c125a==4? @optioncode.InList(21,22,23,24,25,26,27,555,888): c125a==5?
@optioncode.InList(28,29,555,888): @optioncode.InList(111,555,888)

LEGEND

Legend and structure of information in this file

Name of section	Enabling condition for this section	Type of question, scope	Variable name
<p>SECTION 5: OTHER INCOME SOURCES</p> <p>E s4_other_sources_which.Contains(98)</p> <hr/> <p>Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur?</p> <p>I This refers to family relations E s3_time_other > 0 V1 s4_re1_leaders_which.Contains(98) M1 Can not be itself V2 (s3_time_other_breeding_advice <= (50 - s3_time_art_insem_advice)) || s3_time_other_breeding_advice == 0 M2 This person is not in the list F optioncode != s5_ignored_option_code</p>		<p>ANSWER OPTIONS</p> <p>MULTI-SELECT SCOPE: PREFILLED</p> <p>01 <input type="checkbox"/> Community animal health workers</p> <p>02 <input type="checkbox"/> Private</p> <p>03 <input type="checkbox"/> Government</p> <p>04 <input type="checkbox"/> Livestock keepers association</p> <p>05 <input type="checkbox"/> NGO</p> <p>And 5 other [13]</p>	s4_re1_leaders_other
<p>Additional information:</p> <p>"I" – Question instruction</p> <p>"E" – Enabling condition</p> <p>"V1" – Validation condition №1</p> <p>"M1" – Message for validation №1</p> <p>"F" – Filter in Categorical questions</p>		<p>Link to full set in appendix</p>	

Breadcrumbs

Type or roster	Roster Title
CHAPTER 3 IDENTIFICATION / Roster:	LEADER RELATION DETAILS generated by fixed list:
01	Ward Livestock Officer
02	Village Livestock Officer
99	Other (specify)
	List items