Appendices

Appendix 1. Questionnaire for the Malaysia

‘PUBLIC ATTITUDES TOWARDS ENERGY POLICY AND SUSTAINABLE DEVELOPMENT IN ASEAN PHASE 3’

Dear Sir/Madam,

a) This survey is conducted by University Malaysia Terengganu in collaboration with the Institute for Future Initiatives (IFI), The University of Tokyo, Japan.

b) You are selected to participate in this survey at random to provide information and opinions related to renewable energy.

c) Your answers to this survey will be treated confidentially. Any personal information gathered in this survey will not be given to the third party. Only anonymized data will be shared with other researchers. This survey has been reviewed and approved by the University of Tokyo’s Ethical Review Expert Committee.

d) Your cooperation in undertaking this study is very much appreciated.

Thank You
Dear Sir/Madam,

We would like to invite you to participate in our survey.

**Purpose:** The purpose of this research is to investigate household’s electricity consumption and attitudes towards cleaner sources of energy as well as willingness to pay.

**Methods:** We will ask you questions about your opinions on several issues related to electricity consumption and housing, and collect geographic location and some demographic information of your family. The interview will take approximately 60 minutes.

**Confidentiality:** Your answers to this survey will be stored in a computer anonymously. Any personal identification information, including your name, will not be entered into the computer. Your name will only appear on the consent form and/or your payment receipt.

**Benefits:** You will be compensated RM30.00 if you decide to participate in our survey and complete the questionnaire.

**Risks:** There are no known risks.

**Withdrawal from the survey:** We would like to interview an adult member of your family who pays monthly electricity bills, or uses the most electricity. Your participation is completely voluntary. You are free to discontinue participation at any time during the interview. You are free to refuse answering any question during the interview.

**Use of your information:** Your information will be analysed using statistical techniques and will be used to write academic papers and reports. Only group information will be presented or published. If you withdraw during the interview, the questionnaire will be destroyed and the information you provided cannot be used in the analysis.

*In the case you have any questions about the questionnaire, please contact the investigator:*
CONSENT FORM
enumerator keep this

Do you understand that you have been asked to participate in a research survey? □ Yes □ No

Have you received and read a copy of the Information Sheet? □ Yes □ No

Do you understand the benefits and risks involved in participating in this survey? □ Yes □ No

Do you understand that you can quit taking part in this survey at any time? □ Yes □ No

Has confidentiality been explained to you? □ Yes □ No

Do you understand how your answers will be used? □ Yes □ No

Do you know what your answers will be used for? □ Yes □ No

Do you give us permission to use your data for the purposes specified? □ Yes □ No

Do you agree to participate in the survey? □ Yes □ No

[Enumerators are not allowed to interview if there is any answer of ‘No’ in the above questions]

I agree to participate in the survey.

______________________  _______________________
Name and Signature       Date

Phone:
SURVEY ON ELECTRICITY CONSUMPTION AND ATTITUDES TOWARDS CLEANER SOURCES OF ENERGY

ID: __________
Version: __________

Enumerator ______________________________

Date of interview

_____   _____   2022
dd          mm

Question 1.  (p1q1) Does your household have an electricity meter installed directly from Tenaga Nasional Berhad (TNB)?

☐ 1. Yes → Go to Part 1.

☐ 2. No → Enumerator stops the survey and reports to the supervisor.

PART I: ELECTRICITY CONSUMPTION

 Enumerator DO NOT ask to see the electricity bills to fill in Question 2 and 3. Simply record the answers from respondents for these two questions.

These two questions ask the household’s electricity consumption and bill, including domestic uses and household business (if more than one meter, then sum up the amounts from all the bills of meters for an average month). The electricity consumption asked in these two questions also include the quantity shared with other households, tenants, and business renters. However, DO NOT include the amount of electricity of tenants/renters who have registered for their own electricity meter with TNB.

Question 2.  (p1q2) In the past 12 months, on your best estimate what is your household’s average monthly electricity consumption as in your electricity bills? ________________ kWh/month.

Question 3.  (p1q3) In the past 12 months, on your best estimate how much is your household’s average monthly electricity bill? ________________ RM /month.

Question 4.  (p1q4) Does your household share electricity with neighbouring households, tenants or business renters?

☐ 1. Yes → Go to Question 5.    ☐ 2. No → Go to Question 6.

Question 5.  (p1q5) Out of the monthly electricity consumption of [copy the response from Question 2 here]_______ kWh/month, how much electricity is consumed by these neighbouring households, tenants and business renters who share electricity with your households? ________________ kWh/month.
**Question 6.**  (p1q6) Your household has... [Choose one only]

- 1. Residential electricity meter only.
- 2. Business electricity meter only.
- 3. Both residential and business electricity meters.

Enumerators ask for permission to see the residential electricity bills for the last three months and fill in the following information in Questions 7 to 13. In case the household does not have a residential electricity meter, ask for electricity bills for manufacturing/commercial uses instead.

**Question 7.**  (p1q7) Electricity consumption and electricity bills

a. Month __ year 20___: _______ kWh, amount (tax and KWTTB included): ________RM.

b. Month __ year 20___: _______ kWh, amount (tax and KWTTB included): ________RM.

c. Month __ year 20___: _______ kWh, amount (tax and KWTTB included): ________RM.

**Question 8.**  (p1q8) Customer name (as in electricity bill).

**Question 9.**  (p1q9) Please check the applicable box.

- 1. I am the customer on the electricity bill and normally pay for it
- 2. I’m not the customer on the electricity bill but normally pay bills of the family
- 3. None of the above

**Question 10.**  (p1q10) Address where the electricity meter is installed: house number and street name: ____________________________, District: ____________________________, State: ____________________________.

**Question 11.**  (p1q11) Customer ID (as in monthly electricity bill): No. Kontrak_________________.

**Question 12.**  (p1q12) Tariff code (as in monthly electricity bill):

________________________. Enumerator records this code in full, for example ‘A: Kediaman’.

**Question 13.**  (p1q13) Voltage level (as in monthly electricity bill): ______________.

**Question 14.**  (p1q14) Number of households sharing the meter (as in electricity bill):

__________ households.

**Question 15.**  (p1q15) The reason why more than one household shares your electricity meter? Enumerator ask this question if the number of households is greater than 1.
1. Tenants/Renters/Neighbours

2. My family have more than one household registration books

**Question 16.** (p1q16) Enumerators ask for permission to take a photo of the recent bill amongst the electricity bills viewed.

*Enumerator asks Question 17 to Question 19 if the response to Question 6 is ‘3’ (Residential and business electricity meter), otherwise go to Question 20.*

**Question 17.** (p1q17) In the past 12 months, on your best estimate what is the average monthly electricity quantity measured by manufacturing/business electricity meter? ___________ kWh.

**Question 18.** (p1q18) In the past 12 months, on your best estimate how much is the average monthly bill for this business electricity connection? ___________ RM/month.

**Question 19.** (p1q19) Enumerators ask for permission to take a photo of the recent business electricity bill.

**Question 20.** (p1q20) Does your household run a small business (restaurant, coffee shop, inn...) at home?

- [ ] 1. Yes → Go to Question 22.
- [ ] 2. No → Go to Question 25.

*[LOGICAL CHECK – IN THE SURVEY SOLUTION DESIGN, PUT THIS QUESTION AT THE END OF THE INTERVIEW]* If the response to Question 7 is ‘2’ or ‘3’, and the answer to this question is ‘No’, then ask why having a business electricity meter while not running a business.

**Question 21.** (p1q21) What is your household business activity? Note: not including housing units for long-term rent.

- [ ] 1. Grocery
- [ ] 2. Specialty store
- [ ] 3. Restaurant
- [ ] 4. Coffee shop
- [ ] 5. Laundry services/ironing
- [ ] 6. Barber/Beauty shop
- [ ] 7. Tailor shop
- [ ] 8. Hotel/inn
- [ ] 9. Agriculture
- [ ] 10. Bike/car wash
- [ ] 11. Bike/car repair shop
- [ ] 12. Household manufacturing plant
- [ ] 13. Others, specify: ___________
Question 21. (p1q22) Does your household install a private electricity meter to count, or do you know, the volume of electricity used by this business?

☐ 1. Yes → Go to Question 23. ☐ 2. No → Go to Question 24.

Question 22. (p1q23) What is the average monthly volume of electricity consumed by this business? ___________ kWh. → Go to Question 25

Question 23. (p1q24) What is the proportion of the total monthly electricity volume used for this business per total volume?

☐ a. A quarter ☐ b. A half
☐ c. Three quarter ☐ d. Almost all

Question 24. (p2q25) In the past year, how many times has your household experienced a power outage? ________ times/year.

Question 25. (p2q26) What is the average length of the power outages your household has experienced over the past year? ________ hours/time.
PART 2: CHOICE EXPERIMENT

INTRODUCTION TO THE CHOICE QUESTIONS

CHOICE Explanation

Choice explanation 1: Though coal-, crude-oil- and gas-fired thermal power plants contribute more than 80% of the gross electricity production in Malaysia, the electricity generation by these fossil fuels produce a great amount of greenhouse gases, which considerably contribute to the process of global warming.

Switching fossil fuels to renewable energy sources (e.g., solar, wind, biomass and small-scale or mini hydropower) is considered to be an important measure of global warming mitigation because greenhouse gases emission from the production of renewable energy is much lower than coal and gas thermal power.

The installation of renewable energy sources might increase the cost of electricity production. As a result, the retail price of electricity may have to increase. We would like to know your WTP for the increased renewable energy production.

Choice explanation 2: Though coal-, crude-oil- and gas-fired thermal power plants contribute more than 80% of the gross electricity production in Malaysia, the electricity generation by these fossil fuels produce a great amount of greenhouse gases, which considerably contribute to the process of global warming.

Switching fossil fuels to renewable energy sources (e.g., solar, wind, biomass and small-scale or mini hydropower) is considered to be an important measure of global warming mitigation because greenhouse gases emission from the production of renewable energy is much lower than coal and gas thermal power. In addition, they do not incur fuel costs (with the exception of biomass power generation) and are based in the domestic territory, leading to greater energy self-sufficiency and less energy imports from foreign countries. They are renewable by definition, and there is no need to worry about depletion.

The installation of renewable energy sources might increase the cost of electricity production. As a result, the retail price of electricity may have to increase. We would like to know your WTP for the increased renewable energy production.

Choice explanation 3: Though coal-, crude-oil- and gas-fired thermal power plants contribute more than 80% of the gross electricity production in Malaysia, the electricity generation by these fossil fuels produce a great amount of greenhouse gases, which considerably contribute to the process of global warming.

Switching fossil fuels to renewable energy sources (e.g., solar, wind, biomass and small-scale or mini hydropower) is considered to be an important measure of global warming mitigation because greenhouse gases emission from the production of renewable energy is much lower than coal and gas thermal power.
However, since the energy source of renewable energy is of natural origin, it is subject to environmental factors such as weather and continuously fluctuates, and may require energy storage such as batteries for a back-up. Some energy sources, such as geothermal and wind, are concentrated in limited areas, and long-distance transmission may be required to send electricity to urban areas. The installation of renewable energy sources might increase the cost of electricity production. As a result, the retail price of electricity may have to increase. We would like to know your WTP for the increased renewable energy production.

You will now be asked to answer seven to eight questions, each requesting you to make a choice between three alternatives of energy services. Each alternative is characterized by three attributes:

- **the share of renewable energy in total capacity**: the current level is 17% and this figure is far from sufficient level. In the following questions, we assume that it increases to 25%/30%/35%/40% in 2035, in order to understand your preferences on renewable energy.

- **type of renewable energy**: Besides solar energy which is the most popular renewable energy, mini hydro energy (up to 30 MW) and biomass energy are also considerable in Malaysia. Please consider the increase of renewable energy will be powered by only one of these sources though the current share of 17% is combined of those renewable power sources.

- **increase in monthly electricity bill**: as producing renewable energy is likely more costly at this moment, the monthly electricity bill of your households as well as all other households in Malaysia may also increase when the share of renewable energy increases. Please note that the increase in monthly bill is in percentage, so households with higher monthly electricity bills would have to pay larger additional amounts. The bill includes service tax (6%) and renewable energy fund (KWTBB) (1.6%).

Please assume that your monthly bill won’t increase until the share of renewable energy indicated in each choice question is achieved. Please also assume that any attributes other than the three attributes presented in the alternatives remained identical. We would like to know which alternative you most prefer.

**CHOICE TASKS**

**Choice task 1:** Enumerator give the Card 1 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

- □ 1. Alternative A
- □ 2. Alternative B
- □ 3. Alternative C

**Choice task 2:** Enumerator give the Card 2 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.
Choice task 3: Enumerator give the Card 3 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

Choice task 4: Enumerator give the Card 4 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

Choice task 5: Enumerator give the Card 5 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

Choice task 6: Enumerator give the Card 6 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

Choice task 7: Enumerator give the Card 7 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

Choice task 8: Enumerator give the Card 8 of Block #. Record the CSID on the choice card here ______. Then ask the respondent to make the choice.

FOLLOW-UP QUESTIONS

FU-Q 1. (p2q1) How certain are you of the choices you made?

FU-Q 2: (p2q2) Have you ever heard of or known about renewable energy sources below?

Solar power □ 1. Yes □ 2. No
Biomass/waste power □ 1. Yes □ 2. No
Mini hydropower □ 1. Yes □ 2. No
FU-Q 3: (p2q3) How do you feel about renewable energy sources below?

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Solar power</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Biomass/waste power</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Mini hydropower</td>
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</table>

FU-Q 4. (p2q4) Are the types of renewable energy, i.e. solar energy and mini hydro energy, important to you when making your choice?

- □ 1. Yes
- □ 2. No

FU-Q 5. (p2q5) Do you consider the proportion of renewable energy, i.e. solar energy and mini hydro energy, when making your choices?

- □ 1. Yes
- □ 2. No

FU-Q 6. (p2q6) When making your choices between alternatives, do you think that the shares of renewable energy presented in the alternatives are feasible to implement?

- □ 1. Yes
- □ 2. No

FU-Q 7. (p2q7) Do you think that your household’s monthly electricity bill would increase if the share of renewable energy increases?

- □ 1. Yes
- □ 2. No

FU-Q 8. (p2q8) Have you ever known about the difference between large-scale hydropower and small-scale (mini) hydropower?

- □ 1. Yes
- □ 2. No

FU-Q 9. (p2q9) Do you have any knowledge about the renewable energy fund (TKWBB) which is charged to your monthly electricity bill?

- □ 1. Yes
- □ 2. No

FU-Q 10. (p2q10) Do you have any knowledge on how the renewable energy fund (TKWBB) is used to encourage consumption of renewable energy at premises (house, building, office, factory) respectively?

- □ 1. Yes
- □ 2. No
PART 3: ATTITUDES TOWARDS ENVIRONMENTAL ISSUES

Question 26. (p3q27) Please consider the following energy and environmental problems

<p>| | |</p>
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>1.</td>
<td>Air pollution</td>
</tr>
<tr>
<td>2.</td>
<td>Groundwater contamination</td>
</tr>
<tr>
<td>3.</td>
<td>Solid waste management</td>
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<tr>
<td>4.</td>
<td>Flooding</td>
</tr>
<tr>
<td>5.</td>
<td>Surface water contamination</td>
</tr>
<tr>
<td>6.</td>
<td>Noise</td>
</tr>
<tr>
<td>7.</td>
<td>Hazardous waste from industries</td>
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<tr>
<td>8.</td>
<td>Water shortage</td>
</tr>
<tr>
<td>9.</td>
<td>Electricity shortage</td>
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<tr>
<td>10.</td>
<td>Global warming and climate change</td>
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<tr>
<td>11.</td>
<td>Others, specify: _____________</td>
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</tbody>
</table>

Which one of these environmental problems is the most important one that the government should solve in this city in the next 10 years?

a. Most important: ________

b. Second important: ________

Question 27. (p3q28) Do you agree or disagree with the following statements?

<p>| | | | | | | |</p>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>The government should subsidize electricity for poor households.</td>
<td>Strongly agree (1)</td>
<td>Agree somewhat (2)</td>
<td>Neither agree not disagree (3)</td>
<td>Disagree somewhat (4)</td>
<td>Strongly disagree (5)</td>
</tr>
<tr>
<td>2.</td>
<td>I don’t care about the source of electricity. I prefer the cheapest electricity source.</td>
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<tr>
<td>3.</td>
<td>I am willing to pay more for electricity if there are less blackouts.</td>
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<tr>
<td>4.</td>
<td>The government should provide electricity at a higher price to encourage electricity saving practices</td>
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</tbody>
</table>
**Question 28.** (p3q29) Do you agree or disagree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree (1)</th>
<th>Agree somewhat (2)</th>
<th>Neither agree not disagree (3)</th>
<th>Disagree somewhat (4)</th>
<th>Strongly disagree (5)</th>
<th>Don’t know (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How concerned, if at all, are you about climate change?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>2. Do you think climate change will harm you personally?</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>3. Science and technology will eventually solve our problems with climate change</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>4. Renewable energy is good for the environment.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>5. I hear a lot about renewable energy in the news.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>6. I hear a lot about climate change in the news.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tbody>
</table>

Please read the following information carefully:

Carbon dioxide removal or ‘CDR’ is a group of strategies that might be able to slow or reverse climate change. These strategies remove excess carbon dioxide (CO₂) from the atmosphere through various biological, chemical or physical processes.

**Choice Explanation**

**Choice explanation 1:** The carbon dioxide would be stored in plant matter, such as in trees and soils, so that it cannot contribute to an increase in the Earth’s temperature. This method has the potential to store CO₂ for around 20-100 years.
Choice explanation 2: The carbon dioxide would be stored deep underground, for example in rock formations, so that it cannot contribute to an increase in the Earth's temperature. This method has the potential to store CO$_2$ for thousands of years.

Choice explanation 3: The carbon dioxide would be stored in ocean waters or under the ocean floor, so that it cannot contribute to an increase in the Earth's temperature. This method has the potential to store CO$_2$ for hundreds or possibly thousands of years.

Question 29. (p3q30) Before today, how much, if anything, would you say that you know about carbon dioxide removal technologies? *(Please choose only one)*

1. I know a great deal about carbon dioxide removal technologies
2. I know a fair amount about carbon dioxide removal technologies
3. I know just a little about carbon dioxide removal technologies
4. I have heard of carbon dioxide removal technologies but know almost nothing about it
5. I have not heard of carbon dioxide removal technologies before today

Question 30. (p3q31) Would you support or oppose the use of CDR as a way to tackle climate change?

- □ 1. strongly support
- □ 2. support somewhat
- □ 3. neither support nor oppose
- □ 4. oppose somewhat
- □ 5. strongly oppose
- □ 5. don’t know

Question 31. (p3q32) How do you feel about carbon dioxide removal?

- □ 1. very positively
- □ 2. somewhat positively
- □ 3. neither positively or negatively
- □ 4. somewhat negatively
- □ 5. very negatively
- □ 5. don’t know

Question 32. (p3q33) Some people believe that carbon dioxide removal technologies may have associated risks and benefits. To what extent do you agree or disagree with the following statements?
<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree (1)</th>
<th>Agree somewhat (2)</th>
<th>Neither agree not disagree (3)</th>
<th>Disagree somewhat (4)</th>
<th>Strong-ly disagree (5)</th>
<th>Don’t know (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. My country’s resources (for example, land, energy, finances, etc.) should be used to implement CDR</td>
<td></td>
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<tr>
<td>2. If politicians and businesses think CDR is a possibility, it will make them less likely to pursue other ways of tackling climate change</td>
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<tr>
<td>3. CDR will have a negative impact on the environment</td>
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<tr>
<td>4. CDR will have a negative impact on local communities in my country</td>
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<tr>
<td>5. Those who are already in positions of power will benefit the most from CDR</td>
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<tr>
<td>6. CDR will lower the drive to adapt to the impacts of climate change</td>
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</table>

**Question 33.** (p3q34) Who do you think should take the lead internationally on research into carbon dioxide removal? (Please select only one)

- □ 1. Countries with the largest, historic CO₂ emissions should take the initiative.
- □ 2. Countries with high technical capabilities must take the initiative.
- □ 3. Countries that will suffer the most damage due to global warming should take the initiative.
- □ 4. No country should do research and development of carbon dioxide removal at all.
- □ 5. Don't know.
PART 4: HOUSEHOLD INFORMATION

Question 34.  (p4q35) How you and your family been affected by the epidemic of COVID-19 in any of the following ways? Check all that apply.

- □ 1. Loss of job
- □ 2. Decrease of income
- □ 3. Downturn/closure of household business
- □ 4. None of the above

Question 35.  (p4q36) How many members are there in your household? Enumerator:

Include members who have lived at home for at least 6 months in the last 12 months.

<table>
<thead>
<tr>
<th>Number of members</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Household members (total)</td>
</tr>
<tr>
<td>b. Number of family members regularly staying home during daytime</td>
</tr>
<tr>
<td>c. Number of children aged under 6</td>
</tr>
<tr>
<td>d. Number of members aged above 60</td>
</tr>
</tbody>
</table>

Question 36.  (p4q37) What is the total monthly income of household members?

- □ 1. < RM1000
- □ 2. RM1001–1500
- □ 3. RM1501–2000
- □ 4. RM2001–2500
- □ 5. RM2501–3000
- □ 6. RM3001–3500
- □ 7. RM3501–4000
- □ 8. RM4001–4500
- □ 9. RM4501–5000
- □ 10. RM5001–5500
- □ 11. RM5501–6000
- □ 12. RM6001–6500
- □ 13. RM6501–7000
- □ 14. RM7001–7500
- □ 15. RM7501–8000
- □ 16. RM8001–8500
- □ 17. RM8501–9000
- □ 18. > RM9001

Enumerator: (p4q37a) Please also ask the respondent what is the total gross monthly income (including allowances and other benefits): RM_______/month

Question 37.  (p4q38) What is your gender?

- □ 1. Male
- □ 2. Female
Question 38.  (p4q39) How old are you? ________________ years old.

Question 39.  (p4q40) Are you currently smoking?
   □ 1. YES.   (p4q40a) How many sticks per day?: _______
   □ 2. NO.

Question 40.  (p4q41) What is your occupation?

   □ 1. Unskilled labour
   □ 2. Office worker
   □ 3. Manager
   □ 4. Skilled labor
   □ 5. Housekeeper
   □ 6. Student/Retired/Unemployed
   □ 7. Self-employed
   □ 8. Others, specify: ________________

Question 41.  (p4q42) What is your highest level of education?

   □ 1. Under primary school
   □ 2. Primary school
   □ 3. Secondary school
   □ 4. High school
   □ 5. College
   □ 6. University
   □ 7. Master degree or higher

Question 42.  (p4q43) What is your ethnic group?

   □ 1. Malay
   □ 2. Chinese
   □ 3. Indian
   □ 4. Bumiputera Sabah/Sarawak
   □ 5. Others (_______________)

Question 43.  (p4q44) What is your marital status?

   □ 1. Single
   □ 2. Married
   □ 3. Widow/Widower

Question 44.  (p4q45) Please indicate how happy and content you are with your current living conditions. Please use a scale of 0–10, where 0 is very unhappy/discontented and 10 is perfectly happy/contented: _______

Question 45.  (p4q46) Just before the COVID 19 pandemic, how happy and content were you with your life? Please use a scale of 0–10, where 0 is totally unhappy and 10 is very happy: _______

THANK YOU FOR YOUR TIME!
PART 5: QUALITY MANAGEMENT

The following questions are for enumerators.

**Question 46.**  (p5q47) How would you judge the overall quality of this interview?

- [ ] 1. Excellent
- [ ] 2. Good
- [ ] 3. Fair
- [ ] 4. Poor
- [ ] 5. Unsure; difficult to say

**Question 47.**  (p5q48) Do you think the respondent thought carefully about the valuation questions and made an effort to give truthful answers?

- [ ] 1. Definitely yes
- [ ] 2. Probably yes
- [ ] 3. Not sure/Difficult to say
- [ ] 4. Probably not
- [ ] 5. Definitely not

**Question 48.**  (p5q49) How many people were listening to the interview, other than the respondent?

a. Number of other household members  ____
b. Number of non-household members  ____
c. Total number of people listening  ____

**Question 49.**  (p5q50) Do you have any other comments to add about what happened during the interview that was noteworthy or interesting?

_______________________________________________________________________
_______________________________________________________________________

**Question 50.**  (p5q51) Enumerator stands in the house and collect the GPS location using smart phone/tablet:

**Question 51.**  (p5q52) Picture 1 – Enumerator takes a photo of the front of the house and records distinguishing features.

**Question 52.**  (p5q53) Picture 2 – Enumerator takes a photo of the front of the house and records distinguishing features.
Appendix 2. Attitudes Towards Types of Renewable Energy

Figure A-1. Knowledge About Renewable Energy Sources

Q: Have you ever heard of or known about these renewable energy sources?

Solar

<table>
<thead>
<tr>
<th>Country</th>
<th>2020 (%)</th>
<th>2021 (%)</th>
<th>2022 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Myanmar</td>
<td>98%</td>
<td>96%</td>
<td>91%</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>91%</td>
<td>92%</td>
<td>91%</td>
</tr>
<tr>
<td>Philippines</td>
<td>8%</td>
<td>100%</td>
<td>96%</td>
</tr>
<tr>
<td>Viet Nam</td>
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<tr>
<td>Indonesia</td>
<td>0%</td>
<td>8%</td>
<td>91%</td>
</tr>
<tr>
<td>Thailand</td>
<td>4%</td>
<td>4%</td>
<td>91%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>8%</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>9%</td>
<td>20%</td>
<td>22%</td>
</tr>
</tbody>
</table>

Wind

<table>
<thead>
<tr>
<th>Country</th>
<th>2020 (%)</th>
<th>2021 (%)</th>
<th>2022 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lao PDR</td>
<td>31%</td>
<td>69%</td>
<td>88%</td>
</tr>
<tr>
<td>Philippines</td>
<td>20%</td>
<td>70%</td>
<td>78%</td>
</tr>
<tr>
<td>Viet Nam</td>
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<td>69%</td>
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<td>78%</td>
</tr>
<tr>
<td>Thailand</td>
<td>12%</td>
<td>69%</td>
<td>22%</td>
</tr>
<tr>
<td>Thailand</td>
<td>22%</td>
<td>78%</td>
<td></td>
</tr>
</tbody>
</table>

Geothermal

<table>
<thead>
<tr>
<th>Country</th>
<th>2021 (%)</th>
<th>2022 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>75%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Q: Have you ever heard of or known about these renewable energy sources?
Figure A-1. (continued)

Note: Indonesia is large-scale hydropower, others are mini hydro.

Source: Study Team.
Figure A-2. Attitudes Towards Renewable Energy

**Solar**

![Bar chart showing attitudes towards solar energy in various countries.

- Myanmar (2020) - Very Environmentally Friendly: 56%, Environmentally Friendly: 88%, Not sure: 22%
- Lao PDR (2020) - Very Environmentally Friendly: 3%, Environmentally Friendly: 40%, Not sure: 57%
- Philippines (2021) - Very Environmentally Friendly: 6%, Environmentally Friendly: 72%, Not sure: 22%
- Viet Nam (2020) - Very Environmentally Friendly: 4%, Environmentally Friendly: 42%, Not sure: 51%
- Indonesia (2022) - Very Environmentally Friendly: 1%, Environmentally Friendly: 51%, Not sure: 42%
- Thailand (2020) - Very Environmentally Friendly: 1%, Environmentally Friendly: 72%, Not sure: 27%
- Thailand (2021) - Very Environmentally Friendly: 2%, Environmentally Friendly: 38%, Not sure: 60%
- Malaysia (2021) - Very Environmentally Friendly: 3%, Environmentally Friendly: 56%, Not sure: 32%
- Malaysia (2022) - Very Environmentally Friendly: 0%, Environmentally Friendly: 60%, Not sure: 9%

**Wind**

![Bar chart showing attitudes towards wind energy in various countries.

- Lao PDR (2020) - Very Environmentally Friendly: 3%, Environmentally Friendly: 49%, Not sure: 39%
- Philippines (2021) - Very Environmentally Friendly: 0%, Environmentally Friendly: 21%, Not sure: 70%
- Viet Nam (2020) - Very Environmentally Friendly: 2%, Environmentally Friendly: 42%, Not sure: 41%
- Indonesia (2022) - Very Environmentally Friendly: 1%, Environmentally Friendly: 52%, Not sure: 41%
- Thailand (2020) - Very Environmentally Friendly: 0%, Environmentally Friendly: 26%, Not sure: 63%
- Thailand (2021) - Very Environmentally Friendly: 1%, Environmentally Friendly: 36%, Not sure: 44%
Figure A-2. (continued)

Note: Indonesia is large-scale hydropower, others are mini hydro.
Figure A-2. (continued)

Source: Study Team.