Supplementary Material

1. Data cleaning

An initial review of the data revealed that some respondents did not respond to the questions appropriately. Because the authenticity of their responses was doubtful, we removed potentially invalid data as follows:

1. We removed respondents who chose the same answer to all the matrix questions (Q7, Q12, Q15, Q18, and Q19).
2. We removed the respondent who indicated an invalid age of two.
3. We removed the respondents who chose either 1 or 5 (the most extreme answers) on all subquestions of Q7 or Q18.
4. We removed the respondents who gave nonsensical answers to the open-ended questions in Q11.
5. We removed the respondents who indicated that climate change is happening in their answer to Q1 but then answered that climate change is not occurring on Q2.

Moreover, the non-parametric ANOVA and regression analyses removed "don't know" responses for the variables involved, further reducing the sample size.

2. Survey instrument in English and summary statistics

The survey questionnaire was prepared first in Japanese language, and was then translated into Chinese, English and Korean. For the Philippines and India, although the students may have had various native languages, we used the English-language questionnaire, based on the assumption that most undergraduate students in those countries speak English fluently and could thus understand the questions without difficulty.

In what follows, country names are abbreviated as AU for Australia, JP for Japan, KR for Korea, CN for China, IN for India, and PH for the Philippines. The summary statistics are slightly different from those presented in Sugiyama et al. (2016)[1], since the results here are after data cleaning.

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[1] Sugiyama M, Kosugi T, Ishii A, Asayama S (2016) Public attitudes to climate engineering research and field experiments: Preliminary results of a web survey on students' perception in six Asia-Pacific countries. *The University of Tokyo PARI Working Paper No. 24*, https://pari.ifi.u-tokyo.ac.jp/publications/WP16_24.pdf

Please indicate your gender.						
	AU	JP	KR	CN	IN	PH
1 Male	24.8%	40.8%	51.2%	43.5%	49.2%	49.3%
2 Female	75.2%	59.2%	48.8%	56.5%	50.8%	50.7%

Please indicate your age.						
	AU	JP	KR	CN	IN	PH
16	0.0%	0.0%	0.0%	0.2%	0.0%	0.2%
17	2.6%	0.0%	0.0%	0.8%	0.0%	4.9%
18	14.4%	3.6%	0.0%	8.3%	9.9%	19.6%
19	17.8%	24.9%	0.4%	8.9%	15.0%	21.7%
20	20.8%	24.9%	4.2%	29.7%	25.3%	26.4%
21	17.8%	22.3%	18.8%	22.8%	28.4%	14.3%
22	10.4%	16.1%	16.5%	16.1%	14.2%	9.6%
23	9.0%	4.4%	18.3%	6.9%	5.1%	2.7%
24	2.0%	1.8%	17.9%	3.0%	0.8%	0.6%
25	1.6%	0.8%	11.1%	1.8%	0.8%	0.0%
26	0.8%	0.0%	7.3%	1.4%	0.2%	0.0%
27	0.0%	0.2%	3.6%	0.0%	0.0%	0.0%
28	0.0%	0.2%	1.0%	0.0%	0.0%	0.0%
29	0.4%	0.0%	0.6%	0.0%	0.0%	0.0%
30	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%
31	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
33	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%
34	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
35	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%
36	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
37	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
39	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%
40	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
41	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
47	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
49	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%
56	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
64	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%

Survey on environmental issues

First, we want to know your opinions about global warming.

Q1 Recently global warming has been getting some attention in the news. Global warming refers to the idea that the world's average temperature has been increasing, may be increasing more in the future, and that the world's climate may change as a result. Do you think that global warming is happening?						
	AU	JP	KR	CN	IN	PH
1 Yes	91.2%	82.7%	91.5%	97.4%	96.7%	98.4%
2 No	3.4%	8.0%	5.2%	2.0%	2.5%	1.4%
3 Don't know	5.4%	9.3%	3.4%	0.6%	0.8%	0.2%

Q2 Assuming global warming is happening, do you think it is…						
	AU	JP	KR	CN	IN	PH
1 Caused mostly by human activities	81.0%	82.9%	83.7%	88.4%	90.5%	93.5%
2 Caused mostly by natural changes in the environment	7.2%	12.9%	8.1%	10.8%	6.6%	4.1%
3 Other (Please specify) [TEXT BOX]	7.6%	1.2%	3.2%	0.4%	1.2%	2.5%
4 None of the above because global warming isn't happening	0.8%	0.8%	3.0%	0.4%	0.6%	0.0%
5 Don't know	3.4%	2.2%	2.0%	0.0%	1.0%	0.0%

Q3 Which comes closest to your own view?						
	AU	JP	KR	CN	IN	PH
1 Most scientists think global warming is happening.	70.3%	36.4%	57.3%	64.0%	80.0%	85.3%
2 Most scientists think global warming is not happening.	1.0%	2.6%	3.2%	4.7%	4.3%	1.0%
3 There is a lot of disagreement among scientists about whether or not global warming is happening.	24.4%	57.9%	36.3%	31.3%	10.5%	12.1%
4 Don't know	4.4%	3.0%	3.2%	0.0%	5.1%	1.6%

Q4 How worried are you about global warming?						
	AU	JP	KR	CN	IN	PH
1 Very worried	31.7%	18.5%	12.1%	34.4%	57.0%	67.9%
2 Somewhat worried	55.3%	60.8%	66.7%	59.8%	39.9%	29.9%
3 Not very worried	11.4%	17.7%	19.6%	5.5%	2.7%	2.2%
4 Not at all worried	1.6%	3.0%	1.6%	0.2%	0.4%	0.0%

Q5 How important is the issue of global warming to you personally?						
	AU	JP	KR	CN	IN	PH
1 Extremely important	18.6%	7.8%	5.6%	30.1%	38.9%	45.2%
2 Very important	33.9%	24.5%	18.5%	42.9%	42.4%	42.3%
3 Somewhat important	36.1%	45.1%	54.6%	22.8%	16.0%	11.9%
4 Not too important	9.6%	19.5%	20.2%	3.9%	2.3%	0.6%
5 Not at all important	1.8%	3.0%	1.2%	0.2%	0.4%	0.0%

Q6 How big an effort should [NAME OF COUNTRY] make to reduce global warming?						
	AU	JP	KR	CN	IN	PH
1 A large-scale effort even if it has large economic consequences	41.3%	12.5%	13.3%	49.0%	63.2%	71.6%
2 A medium-scale effort even if it has moderate economic consequences	48.7%	74.4%	80.8%	50.0%	31.7%	24.1%
3 A small-scale effort even if it has small economic consequences	8.6%	9.5%	4.8%	0.6%	4.3%	4.3%
4 No effort	1.4%	3.6%	1.2%	0.4%	0.8%	0.0%

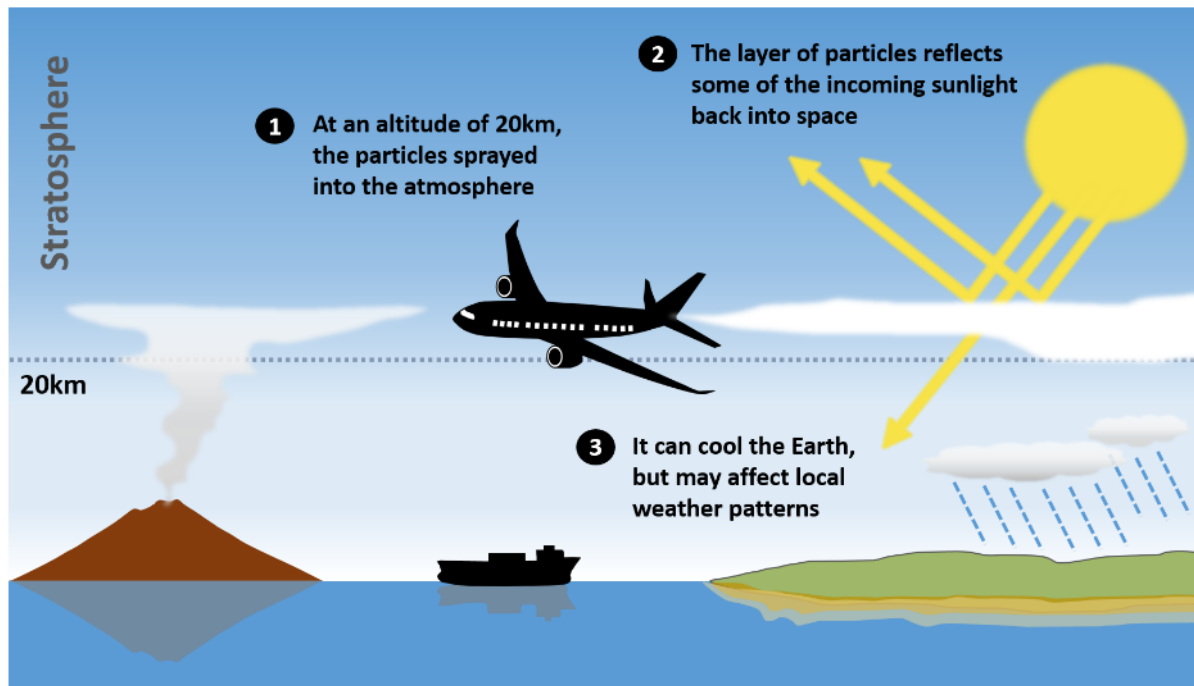| Q7 To what extent do you agree or disagree with each of the following statements? [Randomized order]						
Q7S1 Global warming is likely to be a serious problem for humanity						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	55.1%	42.1%	34.7%	59.8%	76.3%	80.8%
2 Somewhat agree	30.9%	37.8%	46.8%	31.7%	16.9%	15.3%
3 Neither agree nor disagree	9.8%	12.7%	13.1%	6.5%	4.5%	2.2%
4 Somewhat disagree	3.2%	5.0%	5.0%	1.4%	0.2%	0.6%
5 Strongly disagree	1.0%	2.4%	0.4%	0.6%	2.1%	1.0%
Q7S2 The seriousness of global warming is exaggerated						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	6.2%	9.5%	6.0%	5.3%	22.8%	11.0%
2 Somewhat agree	10.6%	21.5%	16.9%	16.9%	28.2%	21.5%
3 Neither agree nor disagree	23.6%	30.6%	32.7%	24.4%	15.6%	20.0%
4 Somewhat disagree	34.3%	27.2%	33.1%	28.5%	16.3%	23.1%
5 Strongly disagree	25.3%	11.3%	11.3%	24.8%	17.1%	24.3%
Q7S3 Global warming is likely to have a big impact on [NAME OF COUNTRY]						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	39.7%	26.8%	18.8%	42.1%	52.5%	75.3%
2 Somewhat agree	42.1%	44.7%	50.4%	41.1%	35.8%	20.0%
3 Neither agree nor disagree	14.4%	18.3%	21.4%	13.8%	7.4%	3.1%
4 Somewhat disagree	2.8%	7.2%	8.3%	2.2%	1.6%	0.4%
5 Strongly disagree	1.0%	3.0%	1.0%	0.8%	2.7%	1.2%
Q7S4 Global warming will mostly affect areas that are far away from [NAME OF COUNTRY]						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	4.4%	14.7%	4.6%	6.9%	10.3%	17.8%
2 Somewhat agree	15.0%	19.7%	22.8%	11.8%	20.0%	23.1%
3 Neither agree nor disagree	33.1%	26.4%	32.1%	18.9%	30.0%	24.7%
4 Somewhat disagree	27.5%	23.9%	27.6%	28.7%	18.7%	17.0%
5 Strongly disagree	20.0%	15.3%	12.9%	33.7%	21.0%	17.4%
Q7S5 I personally feel that I should change my behavior to help to reduce global warming						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	29.1%	15.1%	12.5%	54.1%	49.2%	53.8%
2 Somewhat agree	44.3%	41.6%	44.4%	37.2%	32.9%	34.2%
3 Neither agree nor disagree	18.8%	26.0%	26.6%	6.9%	11.5%	8.6%
4 Somewhat disagree	5.0%	11.7%	14.1%	1.4%	4.7%	1.6%
5 Strongly disagree	2.8%	5.6%	2.4%	0.4%	1.6%	1.8%
Q7S6 The actions of a single individual will NOT make any difference to reduce global warming.						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	5.6%	10.3%	5.8%	8.3%	23.5%	8.2%
2 Somewhat agree	17.8%	24.7%	19.8%	12.8%	21.8%	9.6%
3 Neither agree nor disagree	22.8%	18.1%	20.0%	17.7%	12.8%	8.4%
4 Somewhat disagree	33.5%	33.4%	36.5%	29.9%	15.4%	18.2%
5 Strongly disagree	20.4%	13.5%	17.9%	31.3%	26.5%	55.6%

Q8 Have you ever heard about the proposal of large scale engineering technology designed specifically to combat global warming, either termed 'geoengineering' or 'climate engineering', or sometimes called 'earth engineering'? And, how much do know about this technology?						
	AU	JP	KR	CN	IN	PH
1 I have heard of and know a lot about it	4.0%	2.8%	3.6%	13.6%	13.0%	9.0%
2 I have heard of and know a little about it	22.6%	9.9%	17.9%	49.6%	41.6%	36.0%
3 I have heard of but know almost nothing about it	32.3%	36.6%	37.1%	25.2%	29.0%	25.6%
4 I have never heard of nor know about it at all	41.1%	50.7%	41.5%	11.6%	16.5%	29.4%

Next, we want to know your opinions about climate engineering (or geoengineering).
Please read carefully the following instruction of climate engineering, then answer the questions.

The Earth's surface is heated by the energy of light received from the sun. Global warming is caused because more heat from the sun is trapped by increased carbon dioxide (CO_2) in the atmosphere, which is emitted from the burning of fossil fuels such as coal, oil, and natural gas. To alleviate global warming, we must lower the quantity of CO_2 emissions by reducing our use of fossil fuels.

Recently, a method of artificially cooling the Earth, called climate engineering (CE), has been suggested by scientists as a potential way to fight global warming. CE is a set of different, theoretical technologies intended to deliberately alter the global climate. The latest report from the Intergovernmental Panel on Climate Change (IPCC), a United Nations scientific advisory body, discussed the potential impacts and side effects of CE.

CE technologies vary, but can be broadly categorized into two groups: one is to reflect sunlight back into the space, the other is to artificially remove CO_2 directly from the atmosphere. Among them, the most promising is using an airplane to seed the air with small particles that will reflect sunlight. In below, we use the term CE to indicate this specific technology proposal.

Stratosphere

1 At an altitude of 20km, the particles sprayed into the atmosphere

2 The layer of particles reflects some of the incoming sunlight back into space

3 It can cool the Earth, but may affect local weather patterns

20km

If the particles were seeded in the sky at an altitude of 20 kilometers (the stratosphere), it would block the sunlight, reducing the light reaching the Earth's surface, so it could reduce the global temperature. In fact, a huge volcanic eruption in the Philippines in 1991 lowered the air temperature by about 0.5 degrees Celsius by covering the globe with sulfate particles discharged by the eruption. If this method were employed, even as the CO_2 in the atmosphere increased, it could reduce the impacts of global warming at direct costs lower than the cost of reducing CO_2.

However, it has been pointed out that if CE were used, its side effects would impact the environment. In some countries of Asia and Africa, for example, it might reduce rainfall. It might also deplete the ozone layer. The impact of these side effects is yet unknown. Negative effects that cannot be predicted now might also appear in the future. In order that the anticipated countermeasure, CE, does not cause further problems, it is necessary to investigate its side-effects before implementing it.

Therefore, some scientists have proposed the field tests of CE to investigate its efficacy and side-effects in actual natural environments. They insist that because these would be extremely small-scale tests, it would be possible to almost ignore their effects on the environment. Scientists who support the field tests claim that they must be conducted now in order to prepare for future critical impacts of global warming. They argue that such tests will be safe and would help us understand the risks and benefits of CE and they would not be immediately followed by the use of CE.

However, there are also scientists who opposed to the field tests, for several reasons. One is the argument that small-scale tests won't yield meaningful results and thus indoor research like computer simulation is sufficient. Others are opposed to any tests at all, since they worry that once these tests have begun, it will become impossible to stop developing the technology, eventually lead to an actual use of CE even if it would carry a significant risk. Some also criticize the tests by arguing that as interest focuses on CE, people might neglect efforts to reduce emissions of CO_2. Finally, some argue that the idea of CE itself is a mistake, since deliberately changing the global environment for human convenience is ethically a mistake.

Q9 How much could you understand the information you just read?						
	AU	JP	KR	CN	IN	PH
1 I could understand very much	44.3%	29.0%	30.8%	19.5%	46.1%	50.1%
2 I could somewhat understand	46.9%	50.7%	57.7%	75.8%	48.6%	48.5%
3 I could not understand so much	8.2%	18.5%	10.7%	4.5%	4.1%	1.4%
4 I could not understand at all	0.6%	1.8%	0.8%	0.2%	1.2%	0.0%

Now, we will ask your opinions about climate engineering (CE) after reading the instruction above. If you want to read the instruction again, please click the button below. It will be displayed in a new window.

In below, we use the term climate engineering (CE) referring to "the technology to seed the upper atmosphere with small particles that will reflect sunlight", as introduced above.

Q10 On a purely emotional level, how do you personally feel about the proposal of CE?[2]						
	AU	JP	KR	CN	IN	PH
1 Very positive	6.4%	3.8%	5.2%	20.9%	21.4%	12.7%
2 Fairly positive	39.7%	29.0%	33.9%	56.1%	57.2%	50.5%
3 Neither positive nor negative	34.1%	41.4%	37.7%	15.0%	13.2%	23.1%
4 Fairly negative	16.4%	23.3%	21.6%	7.9%	6.8%	11.5%
5 Very negative	3.4%	2.4%	1.6%	0.2%	1.4%	2.2%

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[2] The choice of "neither positive nor negative" was placed in between "fairly positive" and "fairly negative" and the design of the web questionnaire ensured the ordinal character of the responses.

Q11 What do you think of CE when you read the information above?
(Open-ended, up to 100 words) (optional)
(Results omitted)

Q12 What is your opinion about each of the following statements regarding whether to use CE or not in the future? [Randomized order]

Q12S1 We should use CE as soon as possible.

	AU	JP	KR	CN	IN	PH
1 Strongly agree	5.6%	2.4%	2.4%	16.1%	29.8%	14.3%
2 Somewhat agree	25.7%	17.9%	16.9%	35.8%	40.1%	36.2%
3 Somewhat disagree	31.7%	35.0%	33.1%	24.4%	16.9%	27.2%
4 Strongly disagree	20.0%	35.8%	36.3%	16.7%	7.8%	14.3%
5 Don't know	17.0%	8.9%	11.3%	6.9%	5.3%	8.0%

Q12S2 We should never use CE, no matter the situation.

	AU	JP	KR	CN	IN	PH
1 Strongly agree	3.0%	2.6%	3.4%	7.5%	8.0%	5.3%
2 Somewhat agree	13.6%	12.9%	12.1%	16.3%	21.4%	12.7%
3 Somewhat disagree	39.7%	42.5%	40.3%	32.5%	28.8%	44.2%
4 Strongly disagree	23.4%	30.6%	34.7%	37.0%	32.1%	28.6%
5 Don't know	20.4%	11.5%	9.5%	6.7%	9.7%	9.2%

Q12S3 I am willing to accept the use of CE if it would help to avert massive and irreversible impact of global warming

	AU	JP	KR	CN	IN	PH
1 Strongly agree	16.6%	15.9%	13.7%	15.4%	29.6%	28.0%
2 Somewhat agree	53.3%	46.7%	50.6%	46.5%	48.1%	52.4%
3 Somewhat disagree	17.4%	22.3%	18.7%	23.0%	13.8%	12.9%
4 Strongly disagree	4.6%	8.9%	9.5%	13.0%	5.6%	3.5%
5 Don't know	8.2%	6.2%	7.5%	2.2%	2.9%	3.3%

Q12S4 I am willing to accept the use of CE if it would help to give us more time to cut CO2 emissions

	AU	JP	KR	CN	IN	PH
1 Strongly agree	10.4%	6.2%	4.0%	16.1%	31.3%	24.7%
2 Somewhat agree	55.1%	39.8%	34.7%	44.5%	47.9%	54.2%
3 Somewhat disagree	18.4%	32.6%	33.1%	22.6%	11.1%	12.9%
4 Strongly disagree	6.4%	14.3%	19.4%	13.2%	6.2%	4.7%
5 Don't know	9.8%	7.0%	8.7%	3.5%	3.5%	3.5%

Q12S5 We should not use CE because CE may cause harmful impacts on the environment

	AU	JP	KR	CN	IN	PH
1 Strongly agree	13.8%	9.3%	9.1%	10.4%	17.7%	15.3%
2 Somewhat agree	41.7%	37.0%	33.3%	29.7%	30.0%	31.7%
3 Somewhat disagree	25.9%	35.0%	35.5%	35.2%	33.3%	35.4%
4 Strongly disagree	4.6%	9.5%	11.9%	19.5%	13.4%	11.5%
5 Don't know	14.0%	9.3%	10.1%	5.1%	5.6%	6.1%

Q12S6 We should not think of using CE because it will take away people's motivation to reduce CO2 emissions

	AU	JP	KR	CN	IN	PH
1 Strongly agree	8.2%	6.8%	3.8%	12.4%	16.0%	13.1%
2 Somewhat agree	33.5%	25.2%	22.6%	25.8%	33.7%	29.4%
3 Somewhat disagree	33.5%	36.4%	41.7%	34.3%	32.5%	36.4%

4 Strongly disagree	14.6%	24.3%	22.0%	23.2%	13.0%	17.0%
5 Don't know	10.2%	7.2%	9.9%	4.3%	4.7%	4.1%

Q13 Some scientists claim that we should research CE to investigate its efficacy and side effects. Particularly, they are suggesting to conduct the field tests of CE in the natural environment. Which, if any, of the following statements most closely describes your own opinion about the field tests of CE?						
	AU	JP	KR	CN	IN	PH
1 I am willing to accept that scientists will conduct the field tests of CE	39.1%	27.0%	16.7%	31.7%	58.4%	44.2%
2 I don't really like the idea of field tests of CE, but I reluctantly accept that we will need it to help combat global warming	28.1%	34.4%	33.5%	45.1%	24.1%	32.3%
3 I oppose that scientists will conduct the field tests of CE, but I am willing to accept the indoor research such as computer simulations and lab experiments	21.6%	29.0%	40.7%	21.5%	12.8%	20.4%
4 I oppose the research of CE at all, no matter what type of research it is	2.0%	1.6%	1.8%	0.4%	1.0%	1.6%
5 Don't know	9.2%	8.0%	7.3%	1.4%	3.7%	1.4%

Q14 Assuming scientists will conduct the field tests of CE, what level of regulation is needed for the field tests? Which, if any, of the following statements most closely describes your own opinion?						
	AU	JP	KR	CN	IN	PH
1 An international framework is needed.	66.7%	77.1%	80.2%	84.8%	61.7%	73.6%
2 A national government's regulation is needed, but an international framework is not necessary.	17.6%	12.1%	7.7%	9.4%	25.1%	21.7%
3 Scientists' self-regulation is enough.	4.4%	4.8%	6.5%	4.5%	6.8%	3.3%
4 There is no need for regulation at all.	0.0%	1.2%	0.8%	0.2%	1.6%	0.2%
5 Don't know	11.4%	4.8%	4.8%	1.0%	4.7%	1.2%

Q15 Assuming scientists will conduct the field tests of CE, what is your opinion about each of the following statements? [Randomized order]						
Q15S1 Scientists should listen to the citizens' opinion before conducting the field tests.						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	30.3%	43.5%	37.1%	43.9%	45.3%	49.9%
2 Somewhat agree	45.9%	32.8%	40.5%	42.3%	39.5%	39.9%
3 Somewhat disagree	14.2%	13.9%	13.3%	10.4%	10.5%	8.0%
4 Strongly disagree	1.6%	6.2%	4.4%	2.4%	3.1%	0.8%
5 Don't know	8.0%	3.6%	4.8%	1.0%	1.6%	1.4%
Q15S2 Scientists should openly disclose all the results of the field tests including negative information.						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	59.3%	68.6%	65.3%	68.5%	52.3%	51.5%
2 Somewhat agree	26.1%	21.1%	21.6%	26.2%	25.7%	23.9%
3 Somewhat disagree	6.8%	6.6%	9.1%	4.1%	13.4%	13.9%
4 Strongly disagree	1.4%	1.4%	1.2%	0.6%	6.4%	9.0%
5 Don't know	6.4%	2.2%	2.8%	0.6%	2.3%	1.6%
Q15S3 There should be an independent assessment of how to conduct the field tests.						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	36.3%	42.3%	46.6%	53.9%	39.9%	44.0%
2 Somewhat agree	39.9%	38.8%	37.1%	38.2%	39.3%	40.5%
3 Somewhat disagree	9.6%	9.7%	8.7%	4.7%	13.4%	10.8%
4 Strongly disagree	1.4%	3.4%	3.0%	2.0%	4.3%	3.1%
5 Don't know	12.8%	5.8%	4.6%	1.2%	3.1%	1.6%
Q15S4 The involvement of private companies for profit should be banned.						
	AU	JP	KR	CN	IN	PH
1 Strongly agree	40.5%	28.0%	36.7%	51.2%	45.1%	46.4%
2 Somewhat agree	30.1%	30.0%	30.6%	33.1%	30.2%	27.2%
3 Somewhat disagree	13.2%	22.7%	19.4%	10.8%	16.3%	19.8%
4 Strongly disagree	2.2%	11.5%	8.5%	4.1%	4.9%	4.5%
5 Don't know	14.0%	7.8%	4.8%	0.8%	3.5%	2.0%

Q16 Assuming CE research (including the field tests) is to be conducted internationally, who do you think should take the initiative? Which, if any, of the following statements most closely describes your own opinion?						
	AU	JP	KR	CN	IN	PH
1 The countries with largest CO2 emissions should take the initiative.	35.1%	9.1%	16.1%	16.3%	41.6%	48.3%
2 The countries with high technical capacity should take the initiative.	42.3%	77.9%	65.1%	70.5%	36.2%	41.1%
3 The countries that will suffer from most severe damage of global warming should take the initiative.	7.8%	5.0%	9.7%	9.6%	16.3%	9.0%
4 No countries should conduct CE research at all.	2.4%	1.6%	2.4%	0.6%	1.4%	0.6%
5 Don't know	12.4%	6.4%	6.7%	3.0%	4.5%	1.0%

Q17 Overall, to what extent would you support or oppose the proposal of CE as a way to combat global warming?[3]						
	AU	JP	KR	CN	IN	PH
1 Strongly support	10.2%	8.2%	6.0%	21.7%	32.9%	22.5%
2 Tend to support	43.5%	35.2%	38.3%	54.9%	47.1%	51.7%
3 Neither support nor oppose	30.7%	33.0%	32.1%	14.4%	11.9%	17.0%
4 Tend to oppose	12.2%	20.1%	20.0%	8.7%	5.1%	7.0%
5 Strongly oppose	3.4%	3.4%	3.6%	0.4%	2.9%	1.8%

The questions about climate engineering end.

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[3] The choice of "neither support nor oppose" was placed in between "Tend to support" and "Tend to oppose" and the design of the web questionnaire ensured the ordinal character of the responses.

Next, we want to know your opinions about the environment, society and science.

Q18 To what extent do you agree or disagree with each of the following statements? [Randomized order]

Q18S1 We believe too often in science, not enough in feelings and faith (By 'feelings and faith' we mean emotions and religious beliefs)

	AU	JP	KR	CN	IN	PH
1 Strongly agree	5.6%	8.5%	3.4%	10.0%	20.8%	15.5%
2 Somewhat agree	18.0%	26.8%	24.8%	26.6%	35.6%	34.2%
3 Neither agree nor disagree	27.3%	27.4%	36.7%	29.3%	22.6%	25.2%
4 Somewhat disagree	20.0%	27.0%	25.2%	23.8%	14.2%	16.0%
5 Strongly disagree	29.1%	10.5%	9.9%	10.2%	6.8%	9.2%

Q18S2 Overall, modern science does more harm than good

	AU	JP	KR	CN	IN	PH
1 Strongly agree	3.4%	4.0%	3.8%	11.2%	17.3%	10.2%
2 Somewhat agree	14.2%	16.3%	13.5%	18.5%	32.1%	29.2%
3 Neither agree nor disagree	36.3%	34.6%	40.3%	19.9%	29.4%	33.7%
4 Somewhat disagree	26.9%	27.0%	31.3%	31.5%	14.4%	20.4%
5 Strongly disagree	19.2%	18.1%	11.1%	18.9%	6.8%	6.3%

Q18S3 Modern science will solve our environmental problems with little change to our way of life

	AU	JP	KR	CN	IN	PH
1 Strongly agree	5.8%	2.2%	2.2%	9.1%	25.5%	23.7%
2 Somewhat agree	27.7%	13.1%	11.7%	17.3%	46.1%	47.2%
3 Neither agree nor disagree	34.7%	22.9%	23.0%	21.3%	18.9%	19.6%
4 Somewhat disagree	22.8%	42.7%	43.3%	30.9%	7.4%	7.2%
5 Strongly disagree	9.0%	19.1%	19.8%	21.5%	2.1%	2.2%

Q18S4 We worry too much about the future of the environment and not enough about prices and jobs today

	AU	JP	KR	CN	IN	PH
1 Strongly agree	3.0%	5.6%	2.2%	9.4%	16.5%	16.6%
2 Somewhat agree	15.0%	20.5%	17.9%	24.4%	27.6%	26.8%
3 Neither agree nor disagree	28.1%	30.8%	30.0%	27.2%	20.6%	25.4%
4 Somewhat disagree	31.5%	32.2%	40.9%	30.7%	19.1%	22.5%
5 Strongly disagree	22.4%	10.9%	9.1%	8.3%	16.3%	8.8%

Q18S5 Almost everything we do in modern life harms the environment

	AU	JP	KR	CN	IN	PH
1 Strongly agree	17.2%	11.5%	15.5%	13.4%	25.5%	27.8%
2 Somewhat agree	44.5%	35.2%	51.6%	34.4%	41.6%	48.5%
3 Neither agree nor disagree	26.1%	28.2%	23.2%	27.0%	17.5%	13.5%
4 Somewhat disagree	10.2%	17.9%	8.5%	19.5%	12.6%	8.6%
5 Strongly disagree	2.0%	7.2%	1.2%	5.7%	2.9%	1.6%

Q18S6 People worry too much about human progress harming the environment

	AU	JP	KR	CN	IN	PH
1 Strongly agree	4.0%	5.2%	2.4%	11.4%	25.5%	21.5%
2 Somewhat agree	13.8%	21.1%	22.0%	28.0%	31.3%	36.8%
3 Neither agree nor disagree	25.9%	32.6%	38.1%	23.6%	18.1%	20.2%
4 Somewhat disagree	34.1%	30.6%	33.1%	25.4%	17.5%	15.1%
5 Strongly disagree	22.2%	10.5%	4.4%	11.6%	7.6%	6.3%

Q18S7 In order to protect the environment [NAME OF COUNTRY] needs economic growth

	AU	JP	KR	CN	IN	PH
1 Strongly agree	5.4%	10.1%	9.9%	18.1%	31.9%	29.7%
2 Somewhat agree	31.9%	34.6%	37.3%	43.3%	38.7%	44.2%
3 Neither agree nor disagree	42.7%	38.4%	40.9%	28.0%	18.3%	16.8%
4 Somewhat disagree	14.8%	13.9%	10.7%	9.1%	7.2%	8.4%
5 Strongly disagree	5.2%	3.0%	1.2%	1.6%	3.9%	1.0%

Q18S8 Economic growth always harms the environment

	AU	JP	KR	CN	IN	PH
1 Strongly agree	7.2%	17.1%	14.1%	21.5%	14.2%	17.0%
2 Somewhat agree	26.1%	42.5%	48.8%	44.9%	34.2%	35.4%
3 Neither agree nor disagree	40.7%	23.9%	24.8%	18.7%	29.6%	28.4%
4 Somewhat disagree	22.6%	12.3%	10.1%	11.0%	16.3%	16.6%
5 Strongly disagree	3.4%	4.2%	2.2%	3.9%	5.8%	2.7%

Q18S9 Economic progress in [NAME OF COUNTRY] will slow down unless we look after the environment better

	AU	JP	KR	CN	IN	PH
1 Strongly agree	17.6%	8.7%	10.1%	26.2%	30.0%	34.4%
2 Somewhat agree	37.7%	34.0%	36.9%	49.2%	36.0%	41.3%
3 Neither agree nor disagree	36.7%	34.8%	35.3%	15.7%	22.4%	17.0%
4 Somewhat disagree	6.8%	15.9%	16.5%	7.7%	7.8%	6.5%
5 Strongly disagree	1.2%	6.6%	1.2%	1.2%	3.7%	0.8%

Q19 How much do you trust the following groups as a source of information about society and the environment? [Randomized order]						
Q19S1 [NAME OF COUNTRY]'s government						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	6.6%	5.2%	1.6%	29.7%	23.0%	7.6%
2 Somewhat trust	33.1%	24.1%	9.3%	42.9%	40.1%	28.2%
3 Neither trust nor distrust	35.3%	34.0%	30.8%	17.9%	21.0%	23.3%
4 Somewhat distrust	19.2%	24.1%	28.8%	5.7%	10.9%	26.4%
5 Strongly distrust	5.8%	12.5%	29.6%	3.7%	4.9%	14.5%
Q19S2 Private companies						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	1.2%	1.6%	1.4%	5.3%	9.9%	6.3%
2 Somewhat trust	13.4%	26.2%	12.3%	18.3%	27.0%	25.4%
3 Neither trust nor distrust	42.5%	50.9%	45.6%	43.7%	29.0%	38.7%
4 Somewhat distrust	27.7%	17.1%	31.5%	27.2%	24.3%	21.7%
5 Strongly distrust	15.2%	4.2%	9.1%	5.5%	9.9%	8.0%
Q19S3 Environmental organizations						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	21.6%	7.0%	7.9%	40.4%	44.0%	46.2%
2 Somewhat trust	47.3%	33.0%	42.5%	48.0%	41.4%	42.1%
3 Neither trust nor distrust	26.1%	32.2%	37.5%	9.8%	9.5%	10.0%
4 Somewhat distrust	3.8%	19.5%	9.9%	1.2%	4.1%	1.4%
5 Strongly distrust	1.2%	8.2%	2.2%	0.6%	1.0%	0.2%
Q19S4 Media (Newspapers, TV broadcast, etc.)						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	2.2%	2.0%	1.6%	11.2%	22.4%	11.5%
2 Somewhat trust	15.2%	14.5%	18.8%	43.9%	33.1%	35.2%
3 Neither trust nor distrust	34.7%	29.4%	37.3%	32.3%	25.1%	27.6%
4 Somewhat distrust	34.3%	29.2%	30.4%	8.9%	13.8%	18.0%
5 Strongly distrust	13.6%	24.9%	11.9%	3.7%	5.6%	7.8%
Q19S5 Researchers at universities or government institutes						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	32.1%	13.1%	7.9%	24.6%	40.1%	46.2%
2 Somewhat trust	48.5%	49.5%	41.3%	53.7%	40.5%	45.8%
3 Neither trust nor distrust	17.4%	26.2%	36.7%	17.9%	14.0%	6.5%
4 Somewhat distrust	1.8%	8.0%	11.5%	3.0%	4.1%	1.0%
5 Strongly distrust	0.2%	3.2%	2.6%	0.8%	1.2%	0.4%
Q19S6 United Nations and international organizations						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	22.6%	14.5%	17.3%	39.2%	45.3%	47.2%
2 Somewhat trust	47.9%	44.9%	51.4%	45.7%	36.4%	40.3%
3 Neither trust nor distrust	23.2%	26.4%	25.6%	13.0%	14.0%	9.8%
4 Somewhat distrust	5.6%	9.9%	4.4%	1.8%	3.9%	2.2%
5 Strongly distrust	0.8%	4.4%	1.4%	0.4%	0.4%	0.4%

Q19S7 Friends and family						
	AU	JP	KR	CN	IN	PH
1 Strongly trust	13.4%	16.1%	15.1%	37.2%	31.7%	29.9%
2 Somewhat trust	33.1%	35.0%	32.9%	44.1%	38.3%	42.9%
3 Neither trust nor distrust	42.5%	35.8%	39.9%	16.1%	22.4%	21.5%
4 Somewhat distrust	8.6%	10.1%	9.3%	2.2%	6.4%	4.5%
5 Strongly distrust	2.4%	3.0%	2.8%	0.4%	1.2%	1.2%

Lastly, we want to know about yourself.

Q20 What is your major field of study? Please choose the closest one from the following options.						
	AU	JP	KR	CN	IN	PH
1 Humanities (philosophy, literature, history, etc.)	14.6%	21.5%	15.5%	17.3%	9.9%	9.8%
2 Social science (economics, politics, law, etc.)	22.2%	23.1%	31.5%	35.4%	19.8%	16.6%
3 Natural science (medicine, agriculture, engineering, etc.)	36.1%	35.4%	42.9%	39.6%	50.2%	49.3%
4 Other	27.1%	19.9%	10.1%	7.7%	20.2%	24.3%

3. Information materials in Japanese, Chinese, and Korean

Information material in Japanese

地球は太陽からの光のエネルギーを受けてあたたかくなっています。地球温暖化は、石炭や石油、天然ガスなどの化石燃料を燃やして出た二酸化炭素（CO2）が大気中で増えて、よりたくさんの熱が地球にこもることで生じています。地球温暖化を抑えるためには、化石燃料の使用を減らして、CO2の排出を減らす必要があります。

最近、新しい地球温暖化対策として、「気候工学」と呼ばれる人工的に地球を冷やす方法が科学者らによって提案されています。気候工学とは、地球の気候を意図的に改変する目的で提案されているさまざまな技術の総称です。国連の科学助言機関の「気候変動に関する政府間パネル（IPCC）」の最新の報告書でも、気候工学の効果や副作用について触れられています。

気候工学の技術にはいろいろな種類があり、おおまかに分けて、太陽の光を宇宙にはね返す技術と、大気からCO2を直接、人工的に取り除く技術の二つが提案されています。その中で、もっとも有望視されているのが、飛行機などを使い、太陽光を反射する微粒子を大気上空にまく技術です。以下では、この技術を指すものとして「気候工学」の言葉を使います。

① 高さ20kmの上空で
微粒子を大気中にまく

② 微粒子が大気をおおい、
太陽光を反射する

③ それによって、地球の気温
は下がるが、局地の天気
に影響が出るかもしれない

成層圏

20km

　高さ20キロメートルの上空（成層圏）でこの微粒子をまくと、これが太陽の光をさえぎり、地上に届く光が減るため、地球の気温を下げることができます。実際、1991年にフィリピンで起きた大きな火山噴火では、噴火で打上げられた硫黄の化合物の微粒子が地球をおおい、気温が約0.5度下がりました。この方法を使えば、大気中のCO_2が増えた状態でも地球温暖化の影響を減らすことができ、CO_2を減らすのに比べて直接的なコストが安くすみます。

　しかし、気候工学を使った場合、それによる環境への副作用の心配が指摘されています。例えば、アジアやアフリカなどの一部の国では雨が減るかもしれず、オゾン層も破壊されるおそれがあります。こうした副作用の影響は、まだよく分かっていません。さらに、現時点では予測できていない負の影響が将来、出るかもしれません。対策であるはずの気候工学がさらなる問題を生まないよう、気候工学を使う前に、副作用を事前に調べることが必要です。

そのため、科学者の中には、実際の自然環境で気候工学の効果と副作用を調べる「屋外実験」をすることを提案する人がいます。非常に小規模な実験のため、環境への影響はほとんど無視できる、と彼らは主張しています。屋外実験に賛成する科学者は、将来の地球温暖化の危機的な影響に備えるためには、今から実験を進める必要がある、と言っています。実験は安全で、気候工学のメリットとデメリットを理解するのに役に立ち、また今すぐに気候工学を使うわけではない、と主張しています。

　しかし、さまざまな理由で屋外実験に反対する科学者らもいます。例えば、小規模な実験ではあまり意味のある結果が得られないので、しばらくはコンピューターの計算などの屋内でできる研究で十分だと主張する人がいます。どんな形であれ、屋外実験そのものに反対する科学者もいます。彼らは、いったん実験をはじめてしまったら、技術開発を途中でやめられなくなり、たとえ大きなリスクがあっても、結果的にそのまま使われてしまうのではないかと心配しています。また、気候工学に関心が集まることで、人びとがCO_2の排出を減らす努力を怠ってしまうことになる、と批判する人もいます。最後に、そもそも人間の都合で意図的に地球の気候を変えること自体が倫理的にまちがっているので、気候工学の発想そのものがまちがいだと言う人もいます。

Information material in Chinese

地球接受来自太阳光的能量变得温暖。全球变暖的成因是煤炭、石油、天然气等化石燃料燃烧所释放出的二氧化碳（CO_2）在大气中增加，致使更多热量聚集在地球。为了抑制全球变暖，就需要减少化石燃料的使用，减少CO_2排放。

最近，作为新的全球变暖对策，科学家们提出了被称为"气候工程"的人为冷却地球的方法。气候工程是以主观性地改变地球气候为目的提出的各种技术的总称。联合国的科学咨询委员会——"政府间气候变化专门委员会（IPCC）"的最新报告中也谈及了气候工程的效果及副作用。

气候工程的技术有各种类型，大致分为将太阳光返回宇宙的技术以及从大气中直接、人为地去除CO_2的技术。其中，被认为最有前途的就是使用飞机等在大气上空喷洒反射太阳光的微粒子的技术。下面，用"气候工程"一词来指示该技术。

1 在20km高空向大气中喷洒微粒子

2 微粒子覆盖大气，反射阳光

3 从而地区温度下降，但可能会对局部地区的天气造成影响

平流层

20km

如果在20km高空（平流层）喷洒该微粒子，则该微粒子遮蔽阳光，减少到达地面的光，因此能够降低地球的气温。实际上，1991年在菲律宾发生的大型火山喷发中，喷火中喷出的硫磺化合物的微粒子覆盖了地球，致使气温下降了约0.5度。如果使用该方法，即使在大气中的CO_2增加的状态下，也能减少全球变暖的影响，与减少CO_2相比，能够降低直接成本。

但是，在使用气候工程的情况下，有人担心这种方法会对环境产生副作用。例如，亚洲、非洲等部分国家降雨可能减少，臭氧层可能遭到破坏。这种副作用的影响尚不清楚。此外，当前无法预测的负面影响可能会在未来显现。为了避免本应为对策措施的气候工程产生进一步的问题，在使用气候工程前，需要事先调查副作用。

因此有科学家建议实施"室外实验"以便在实际的自然环境中调查气候工程的效果与副作用。他们主张：实验规模非常小，因此对环境的影响几乎可以无视。赞成室外实验的科学家认为，为了应对未来全球变暖的危机性影响，需要从现在起就开展实验。他们主张，实验是安全的，且有助于了解气候工程的优缺点，而且并不是立即就要使用气候工程。

但是，也有科学家以各种理由反对室外实验。例如，有人主张，实验规模小，无法获得有意义的结果，因此能够通过计算机计算等在室内完成的研究暂时看来足够了。无论采取何种形式，都有科学家反对室外实验。他们担心：一旦开始实验，就无法在中途停止技术开发，即使存在巨大风险，最终也只能照旧使用。而且有人批评指出，对气候工程的关注会使人们疏于CO_2减排的努力。最后还有人认为，原本以人类的需求主观性地改变地球气候本身在道德上就是错误的，所以气候工程构想本身是错误的。

Information material in Korean

지구는 태양으로부터 빛 에너지를 받아 따뜻하게 유지됩니다. 지구 온난화는 석탄 및 석유, 천연 가스 등의 화석 연료를 태워서 나온 이산화탄소(CO_2)가 대기 중에 증가하여, 보다 많은 열이 지구에 가득 차는 현상에 의해 발생하고 있습니다. 지구 온난화를 억제하기 위해서는 화석 연료의 사용을 줄이고, CO_2의 배출을 감소시킬 필요가 있습니다.

최근 새로운 지구 온난화 대책으로서 '기후 공학'이라고 불리는 인공적으로 지구의 온도를 낮추는 방법이 과학자들에 의해 제안되고 있습니다. 기후 공학이란 지구의 기후를 의도적으로 개변할 목적으로 제안되고 있는 다양한 기술의 총칭입니다. UN의 과학 조언 기관인 '기후 변동에 관한 정부 간 패널(IPCC)'의 최신 보고서에서도 기후 공학의 효과 및 부작용에 대해서 다루고 있습니다.

기후 공학 기술에는 여러 가지 종류가 있으며 대략적으로 나누어 태양광을 우주로 되돌려 보내는 기술과 대기로부터 CO_2를 직접, 인공적으로 제거하는 기술, 두 가지가 제안되고 있습니다. 이 중에서 가장 유망시되고 있는 것이 비행기 등을 사용하여 태양광을 반사하는 미립자를 대기 상공에 뿌리는 기술입니다. 아래에서는 이 기술을 가리키는 것으로서 '기후 공학'이란 단어를 사용합니다.

성층권

❶ 높이 20km 상공에서 미립자를 대기 중에 뿌린다

❷ 입자가 대기를 덮어 태양광을 반사한다

20km

❸ 이로 인해 지구의 기온은 내려가지만 국지적 날씨에 영향을 줄 가능성이 있다
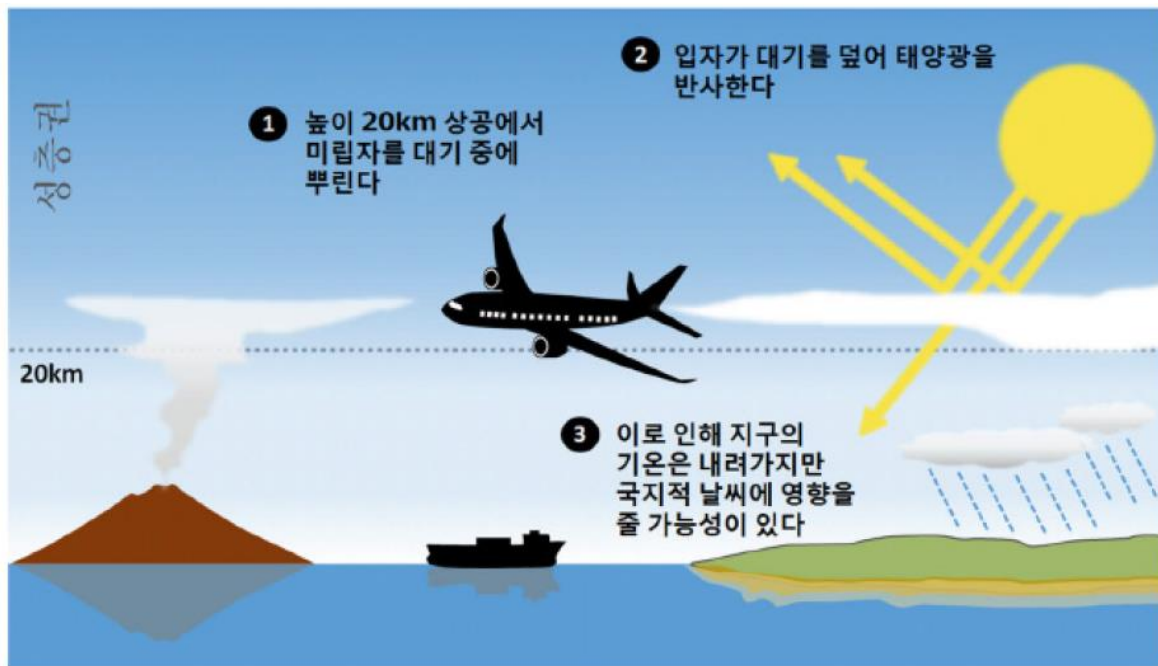
높이 20킬로미터 상공(성층권)에서 이 미립자를 뿌리면 이것이 태양광을 차단하여 지상에 닿는 빛이 줄어들기 때문에 지구의 온도를 낮출 수 있습니다. 실제로 1991년에 필리핀에서 일어난 큰 화산 분화로 분출된 유황 화합물의 미립자가 지구를 덮어 기온이 약 0.5도 내려갔습니다. 이 방법을 사용하면 대기 중 CO2가 늘어난 상태에서도 지구 온난화의 영향을 감소시킬 수 있어, CO2를 감소시키는 것에 비해 직접 코스트가 저렴해집니다.

그러나 기후 공학을 사용한 경우, 그에 따른 환경에 대한 부작용이 지적되고 있습니다. 예를 들어 아시아와 아프리카 등 일부 국가에서는 강수량이 감소될 수도 있고, 오존층도 파괴될 우려가 있습니다. 이러한 부작용의 영향은 아직 잘 밝혀지지 않고 있습니다. 또한 현재 예측하지 못한 부정적인 영향이 향후 나타날지도 모릅니다. 대책이 되어야 할 기후 공학이 새로운 문제를 낳지 않도록 기후 공학을 사용하기 전에 부작용을 사전에 검토할 필요가 있습니다.

작용을 조사하는 '옥외 실험'을 할 것을 제안하는 사람이 있습니다. 아주 소규모의 실험이기 때문에 환경에 미치는 영향은 거의 무시할 수 있는 수준이라고 그들은 주장하고 있습니다. 옥외 실험에 찬성하는 과학자들은 향후 지구 온난화의 위기적인 영향에 대비하기 위해 지금부터 실험을 추진할 필요가 있다고 말하고 있습니다. 실험은 안전하고 기후 공학의 장점과 단점을 이해하는데 도움이 되며, 지금 당장 기후 공학을 사용하는 것은 아니라고 주장하고 있습니다.

그러나 여러 가지 이유로 옥외 실험에 반대하는 과학자들도 있습니다. 예를 들어, 소규모 실험에서는 그다지 의미 있는 결과를 얻을 수 없기 때문에, 당분간은 컴퓨터의 계산 등 실내에서 할 수 있는 연구로 충분하다고 주장하는 사람이 있습니다. 어떤 형태로든 옥외 실험 그 자체에 반대하는 과학자들도 있습니다. 그들은 일단 실험을 시작하면 기술 개발을 도중에 그만둘 수 없게 되어, 비록 리스크가 크다고 해도 결과적으로 그것을 사용하게 되는 것이 아닐까 걱정하고 있습니다. 또한 기후 공학에 관심이 집중되는 것에 의해 사람들이 CO_2 배출을 감소시키는 노력을 게을리하게 될 것이라고 비판하는 사람도 있습니다. 마지막으로 애당초 인간들의 사정에 맞게 의도적으로 지구의 기후를 바꾸는 것 자체가 윤리적으로 잘못된 것이기 때문에 기후 공학의 발상 자체를 부정하는 사람도 있습니다.

4. Sensitivity to weighting

The following figure compares the descriptive results (as presented in Figure 1) with equal weights to both sexes as well as the original results reported in the main text. Although the results for Australia and Japan change somewhat, they do not appreciably the overall conclusion on the difference between developed and developing countries.
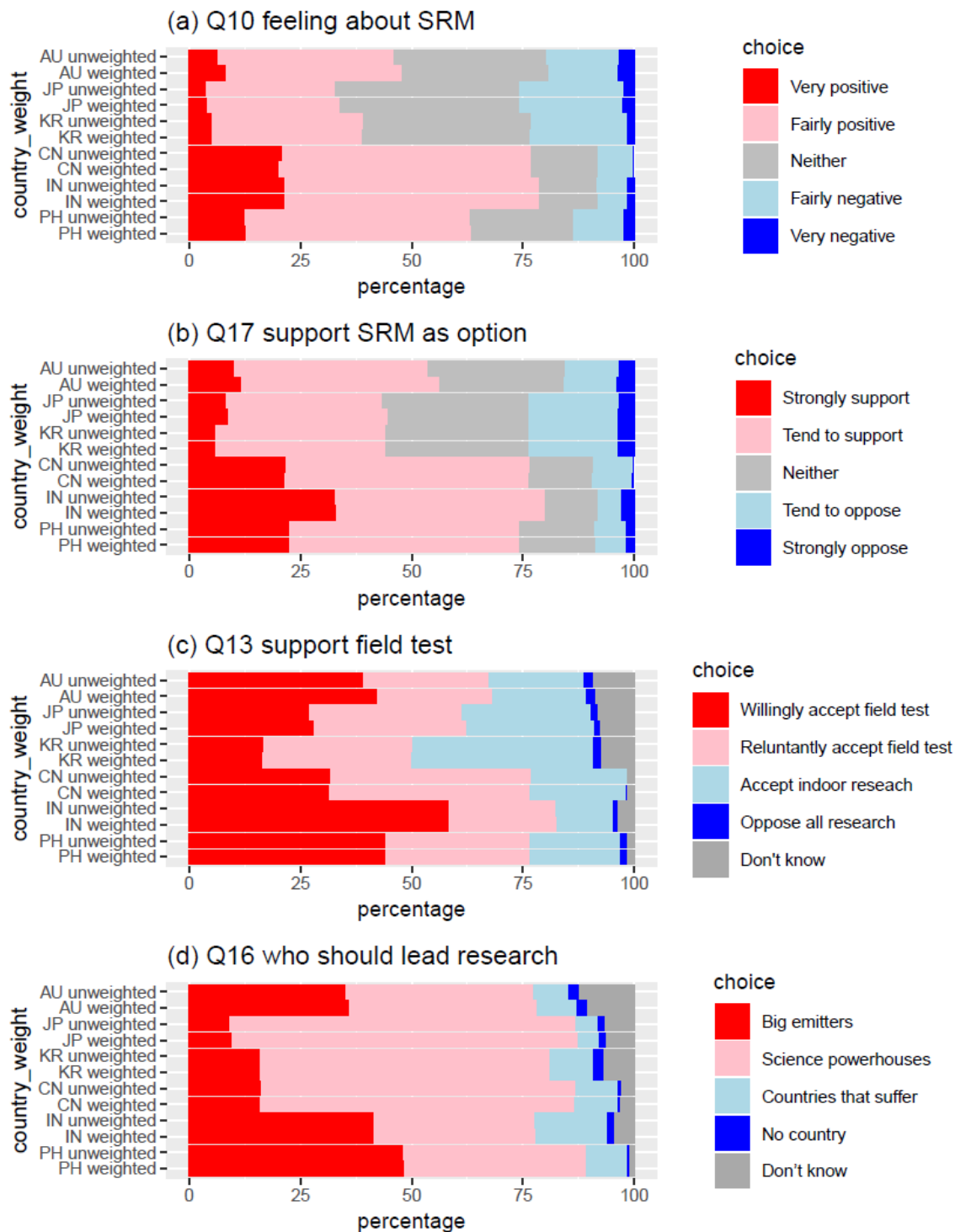

Figure S4-1. As in Figure 1 but also for the results with equal weights to both sexes (indicated as "weighted" in the figure).

5. Data pre-processing, including principal component analysis

For ease of interpretation, values were reversed for responses to the following questions: Q5, Q7, Q8, Q9, Q10, Q12, Q13, Q14, Q15, and Q17.

We reduced the number of dimensions of the independent variables by identifying principal components based on the parallel analysis. We applied dimension reduction to the following matrix questions: the combination of Q5 and subquestions of Q7, and Q18. We also applied varimax rotation.

For Q5 and Q7, we named the first two principal components as (1) "global warming is serious" and (2) "global warming has nothing to do with me." These two together explained 60% of the variance. For Q18, we interpreted the first three components as representing (1) "people worry too much about the environment," (2) "modern science harms the environment," and (3) "environmental protection requires economic growth." The three components explained 57% of the variance. See below.
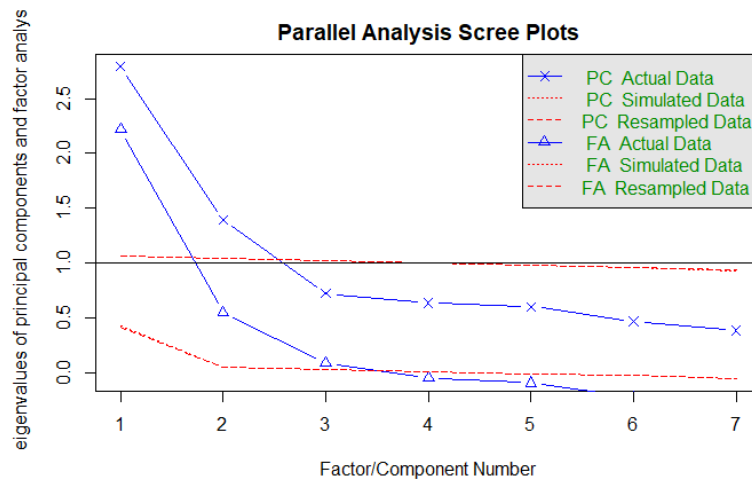

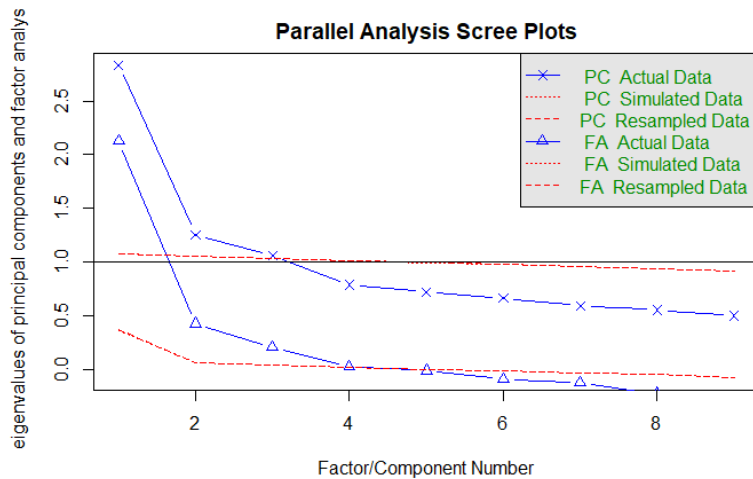Figure S5-1. Scree Plot for PCs based on Q5's & Q7's.

Figure S5-2. Scree Plot for PCs based on Q18's.

Table S5-1. Principal components from responses to Q5 and Q7's.

	PC1 "Global warming is serious"	PC2 "Global warming has nothing to do with me"
Q5 How important is the issue of global warming to you personally?	0.74	-0.01
Q7S1 Global warming is likely to be a serious problem for humanity	0.79	-0.17
Q7S2 The seriousness of global warming is exaggerated	-0.19	0.74
Q7S3 Global warming is likely to have a big impact on [NAME OF COUNTRY]	0.79	-0.12
Q7S4 Global warming will mostly affect areas that are far away from [NAME OF COUNTRY]	0.10	0.75
Q7S5 I personally feel that I should change my behavior to help to reduce global warming	0.79	-0.12
Q7S6 The actions of a single individual will NOT make any difference to reduce global warming	-0.22	0.71
Cumulative variances explained	0.36	0.60

Table S5-2. Principal components from responses to Q18's. Response values have been reversed before principal component analysis so that 5 = strongly agree, etc.

Subquestions of Q18	PC1	PC2 "Modern science	PC3

	"People worry too much about the environment"	harms the environment"	"Environmental protection needs economic growth"
Q18S1 We believe too often in science, not enough in feelings and faith (By 'feelings and faith' we mean emotions and religious beliefs)	0.62	0.31	0.03
Q18S2 Overall, modern science does more harm than good	0.55	0.46	0.03
Q18S3 Modern science will solve our environmental problems with little change to our way of life	0.61	-0.04	0.31
Q18S4 We worry too much about the future of the environment and not enough about prices and jobs today	0.75	0.09	0.07
Q18S5 Almost everything we do in modern life harms the environment	0.06	0.73	0.21
Q18S6 People worry too much about human progress harming the environment	0.77	0.01	0.01
Q18S7 In order to protect the environment [NAME OF COUNTRY] needs economic growth	0.33	-0.13	0.72
Q18S8 Economic growth always harms the environment	0.11	0.75	-0.06
Q18S9 Economic progress in [NAME OF COUNTRY] will slow down unless we look after the environment better	-0.08	0.32	0.77
Cumulative variance	0.26	0.43	0.57

Statistical analyses were conducted using the R software and R packages. The main packages used were nnet for multinomial logistic regression, ggplot2 for graphics, and NSM for the Steel-Dwass test.

6. Multiple comparisons

Table S6-1. Steel-Dwass test for Q10. DSCF W statistic stands for Dwass, Steel, Critchlow, Fligner W statistic. The p value is for a two-sided test.

Pair	DSCF W statistic	p value	
AU - JP	-5.652	0.001	***
AU - KR	-2.925	0.304	
AU - CN	15.003	0.000	***
AU - IN	15.311	0.000	***
AU - PH	7.713	0.000	***
JP - KR	2.753	0.374	
JP - CN	19.992	0.000	***
JP - IN	20.134	0.000	***
JP - PH	13.045	0.000	***
KR - CN	17.626	0.000	***
KR - IN	17.841	0.000	***
KR - PH	10.495	0.000	***
CN - IN	0.616	0.998	
CN - PH	-7.417	0.000	***
IN - PH	-7.901	0.000	***

Table S6-2. As in Table S6-1 but for Q17.

Pair	DSCF W statistic	p value	
AU - JP	-4.911	0.007	**
AU - KR	-5.233	0.003	**
AU - CN	11.050	0.000	***
AU - IN	14.330	0.000	***
AU - PH	10.308	0.000	***
JP - KR	-0.218	1.000	
JP - CN	15.159	0.000	***
JP - IN	17.734	0.000	***
JP - PH	14.366	0.000	***
KR - CN	15.798	0.000	***
KR - IN	18.422	0.000	***

Pair		
KR - PH	14.964	0.000 ***
CN - IN	4.638	0.013 *
CN - PH	-0.444	1.000
IN - PH	-4.888	0.007 **

Table S6-3. As in Table S6-1 but for Q13.

Pair	DSCF W statistic	p value	
AU - JP	-4.292	0.029	*
AU - KR	-9.273	0.000	***
AU - CN	1.156	0.965	
AU - IN	9.403	0.000	***
AU - PH	4.388	0.024	*
JP - KR	-5.352	0.002	**
JP - CN	6.447	0.000	***
JP - IN	14.103	0.000	***
JP - PH	9.221	0.000	***
KR - CN	12.731	0.000	***
KR - IN	19.087	0.000	***
KR - PH	14.746	0.000	***
CN - IN	9.828	0.000	***
CN - PH	3.754	0.085	
IN - PH	-5.700	0.001	***

7. Sensitivity analysis on the base country

Table S7-1. As in Table 2 but for different choices of the base for the country dummy variables. Only the coefficients for the country dummy variables are shown since other coefficients do not significantly vary.

		Q10				Q17				Q13		
		1	2	4	5	1	2	4	5	1	3	4
AU	country_fJP	-1	0.52 *	-0.6 **	-0.7	-0.1	0.66 *	-0.3	-0.1	-0.6	-0.1	-0.7 **
	country_fKR	-1.8 **	0.58 *	-0.1	-0.1	-0.2	0.42	-0.2	-0.6	-1.4 *	-0.5 *	-1.5 ***
	country_fCN	-1.4	0.38	0.8 ***	1.37 ***	-0.8	0.71 *	0.66 **	0.86 **	-1.9	0.19	-0.6 **
	country_fIN	0.53	0.75 *	0.84 ***	1.22 ***	1.68 ***	0.78 *	0.81 ***	1.38 ***	0.19	0.03	0.28
	country_fPH	-0.2	0.27	-0.2	-0.4	0.3	-0.1	0.03	0.11	-0.1	-0.1	-0.5
JP	country_fAU	0.96	-0.5 *	0.63 **	0.65	0.06	-0.7 *	0.34	0.09	0.59	0.13	0.69 **
	country_fKR	-0.8	0.06	0.5 **	0.54	-0.2	-0.2	0.1	-0.5	-0.8	-0.3	-0.8 ***
	country_fCN	-0.5	-0.1	1.43 ***	2.02 ***	-0.8	0.06	1 ***	0.95 ***	-1.3	0.32	0.07
	country_fIN	1.49 *	0.24	1.47 ***	1.87 ***	1.74 ***	0.13	1.16 ***	1.47 ***	0.78	0.15	0.97 ***
	country_fPH	0.76	-0.3	0.43	0.29	0.35	-0.8 *	0.37	0.2	0.48	0.06	0.24
KR	country_fAU	1.8 **	-0.6 *	0.12	0.11	0.21	-0.4	0.24	0.57	1.43 *	0.45 *	1.5 ***
	country_fJP	0.84	-0.1	-0.5 **	-0.5	0.15	0.24	-0.1	0.48	0.84	0.33	0.8 ***
	country_fCN	0.35	-0.2	0.93 ***	1.48 ***	-0.6	0.3	0.9 ***	1.43 ***	-0.5	0.64 **	0.87 ***
	country_fIN	2.33 ***	0.17	0.96 ***	1.33 ***	1.89 ***	0.37	1.05 ***	1.95 ***	1.62 *	0.48	1.77 ***
	country_fPH	1.61 *	-0.3	-0.1	-0.2	0.5	-0.5	0.26	0.68 *	1.32	0.38	1.04 ***
CN	country_fAU	1.45	-0.4	-0.8 ***	-1.4 ***	0.82	-0.7 *	-0.7 **	-0.9 **	1.9	-0.2	0.63 **
	country_fJP	0.49	0.14	-1.4 ***	-2 ***	0.76	-0.1	-1 ***	-1 ***	1.31	-0.3	-0.1
	country_fKR	-0.4	0.2	-0.9 ***	-1.5 ***	0.61	-0.3	-0.9 ***	-1.4 ***	0.47	-0.6 **	-0.9 ***
	country_fIN	1.98	0.37	0.03	-0.1	2.5 **	0.07	0.16	0.52	2.09	-0.2	0.9 ***
	country_fPH	1.25	-0.1	-1 ***	-1.7 ***	1.12	-0.8 *	-0.6 **	-0.8 **	1.79	-0.3	0.17
IN	country_fAU	-0.5	-0.8 *	-0.8 ***	-1.2 ***	-1.7 ***	-0.8 *	-0.8 ***	-1.4 ***	-0.2	-0	-0.3
	country_fJP	-1.5 *	-0.2	-1.5 ***	-1.9 ***	-1.7 ***	-0.1	-1.2 ***	-1.5 ***	-0.8	-0.2	-1 ***
	country_fKR	-2.3 ***	-0.2	-1 ***	-1.3 ***	-1.9 ***	-0.4	-1.1 ***	-1.9 ***	-1.6 *	-0.5	-1.8 ***
	country_fCN	-2	-0.4	-0	0.15	-2.5 **	-0.1	-0.2	-0.5	-2.1	0.16	-0.9 ***
	country_fPH	-0.7	-0.5	-1 ***	-1.6 ***	-1.4 *	-0.9 *	-0.8 **	-1.3 ***	-0.3	-0.1	-0.7 **
PH	country_fAU	0.2	-0.3	0.2	0.36	-0.3	0.11	-0	-0.1	0.11	0.07	0.46
	country_fJP	-0.8	0.25	-0.4	-0.3	-0.4	0.76 *	-0.4	-0.2	-0.5	-0.1	-0.2
	country_fKR	-1.6 *	0.32	0.08	0.25	-0.5	0.52	-0.3	-0.7 *	-1.3	-0.4	-1 ***
	country_fCN	-1.3	0.11	1 ***	1.72 ***	-1.1	0.82 *	0.63 **	0.75 **	-1.8	0.26	-0.2
	country_fIN	0.73	0.49	1.04 ***	1.58 ***	1.38 *	0.89 *	0.79 **	1.27 ***	0.29	0.1	0.73 **