Technical Appendix

Public Perceptions of Climate Mitigation Policies: Evidence from Cross-Country Surveys

Staff Discussion Note No. SDN/2023/002

A1. Sample Questionnaire

Demographic Questions

These were customized so response options differ for each country. Below is the questionnaire used in the USA:

Base: all

[Q1]   Age:

[Q2]   Gender:

[Q3] What is your highest completed education?
<1>   I did not complete any formal education
<2>   Early childhood education
<3>   Primary education
<4>   Lower secondary education (GCSEs or equivalent level)
<5>   Upper secondary education (A-Levels or baccalaureate)
<6>   Post-secondary, non-tertiary education (generally vocational/ professional qualification of 1-2 years, e.g. college, trade school)
<7>   Short-cycle tertiary education (vocational education and training, studying towards a non-academic degree, e.g., nursing/ teaching diploma)
<8>   Bachelors or equivalent level degree
<9>   Masters or equivalent level degree
<10>   Doctoral or equivalent level degree

[Q4] What is your gross household income?
<1>   Less than $10,000
<2> $10,000 - $14,999
<3> $15,000 - $19,999
<4> $20,000 - $24,999
<5> $25,000 - $29,999
<6> $30,000 - $39,999
<7> $40,000 - $49,999
<8> $50,000 - $59,999
<9> $60,000 - $69,999
<10> $70,000 - $79,999
<11> $80,000 - $99,999
<12> $100,000 - $119,999
<13> $120,000 - $149,999
<14> $150,000 or more
<15>   Prefer not to say

[Q5] What is your current marital or relationship status?
<1>   Married
<2>   Never married
<3>   Single
<5>   Divorced
<6>   Widowed
<7>   Separated
<8>   Domestic / civil partnership
<97 fixed> Other
<999 fixed> Prefer not to say

[Q6] How many of the people in your household are under 18?

[Q7] How many people, including yourself, are there in your household? Please include both adults and children.

[Q8] Which, if any, of the following options best describes your current employment status?
<1>   Working full time
<2>   Working part time
<3>   Temporarily laid off
<4>   Retired
<5>   Permanently disabled
<6>   Homemaker
<5>   Student
<8>   Unemployed
<97>   Other
<99>   Prefer not to say

[Q9] What is your State/Region of Residence?
<1>   South
<2>   Northeast
<3>   Midwest
<4>   West

[Q10] How many cars, if any, do you personally own or lease, either individually or jointly?
<1>   One
<2>   Two
<3>   Three or more
<98>   Don't know
<99>   Not applicable - I do not own a car

[Q11] Which modes of transport have you used in the last 12 months? Please select all that apply.
<1>   Walking/ Cycling
<2>   Car/ personal vehicle
<3>   Taxi or ride sharing
<4>   Net: Public transport
<5>   No transport used in the last 12 months

[Q12] Which would you say is your primary source of news? Please select ONE option only.
-A printed copy of a newspaper/ magazine
-A newspaper's/ magazine's website
-A news website not associated with a newspaper/ magazine
-A news app on a mobile or tablet device
-Email newsletters or RSS feeds
-Social network websites
-Blogs not associated with major media organizations
-Television
-Radio
-None of the above
-Don't know
-Not applicable- I don't follow the news

[Q13] If you had to use one of these five categories to describe your social class, which one would it be?
Lower Class or Poor
Working Class
Middle Class
Upper-middle Class
Upper Class

Climate Questions

Base: all
[Q1] To what extent do you agree or disagree with the following:
-[Q1_1] Most people can be trusted
-[Q1_2] The national government in your country can be trusted to do the right thing
<1>   Strongly agree
<2>   Slightly agree
<3>   Neither agree nor disagree
<4>   Slightly disagree
<5>   Strongly disagree
<98>   Don't know

Base: all
[Q3] In your opinion, how much of a role should each of the following have in regulating the economy?
-[Q3_1] The national government
-[Q3_2] Local government
<1>   A large role
<2>   A moderate role
<3>   A minor role
<4>   As small a role as possible
<98>   Don't know

This survey is on the topic of climate change. By climate change we mean long-term changes in global weather patterns. Over the last century, climate change has resulted in higher-than-average temperatures, rising ocean levels, and a higher frequency of extreme weather events and natural disasters (e.g., storms, floods, droughts). Burning fuels like petrol, diesel, gas, or coal releases greenhouse gases, such as carbon dioxide, traps heat in the earth's atmosphere and accelerates climate change.

Base: all
[Q4]   In your view, how serious of a problem is climate change?
<1>   A very serious problem
<2>   A fairly serious problem
<3>   Not a very serious problem
<4>   Not a problem at all
<98>   Don't know

Base: all
[Q5] Which of the following comes closest to your view of how climate change is affecting people around the world?
<1>   Climate change is affecting people around the world right now
<2>   Climate change isn't affecting people right now, but will within the next 5 to 10 years
<3>   Climate change isn't affecting people right now, but will over 10 years from now
<4>   Climate change won't ever affect people
<98>   Don't know

Base: all
[Q6] And which of the following comes closest to your view of how climate change will affect you or your family?
<1>   Climate change is affecting me or my family right now
<2>   Climate change isn't affecting me or my family right now, but will within the next 5 to 10 years
<3>   Climate change isn't affecting me or my family right now, but will over 10 years from now
<4>   Climate change won't ever affect me or my family
<98>   Don't know

Base: all
[Q7]   As far as you know, has your government made a commitment to take action to reduce climate change?
<1>   Yes
<2>   No
<98>   Don't know

Base: all
[Q8] What do you think a good climate (mitigation) policy should aim to achieve?

Base: all
[Q9]   Which, if any, of the following ways of reducing climate change have you previously heard of? Please select all that apply.
<1>   Carbon tax
<2>   Cap and trade or emissions trading systems
<3>   Law and regulations limiting carbon emissions (e.g., emissions standards for industry, vehicles, efficiency standards for appliances etc.)
<4>   Subsidizing renewable energy sources (e.g., producing more electricity from water, wind, and solar power) and low-carbon technologies
<99>   None of the above

The next part of the survey will focus on these four ways of reducing climate change. You will be shown a short section of text explaining the policy and then asked a few questions about it. Please answer as best as you can.

One policy to tackle climate change consists of the government charging companies for the amount of greenhouse gas (usually carbon dioxide) that they produce (for example, by burning fuels like petrol, diesel, gas or coal). This means that companies pay in proportion to how much they pollute. This policy is generally referred to as a "carbon pricing" policy.

Base: all
[Q10] How would you rate the effectiveness of this policy at reducing climate change?
<1>   Very effective
<2>   Fairly effective
<3>   Not very effective
<4>   Not at all effective
<98>   Don't know

Base: randomly selected half
[Q11a] Aside from reducing climate change, do you think there are other benefits of a carbon pricing policy for you personally? Please select all that apply.
<1>   Better air quality
<2>   Less road congestion
<3>   Better public health
<4>   More money raised for social goods and services (e.g. hospitals, schools)

<5>   More investment/research on renewable energy production
<6>   Better public transport
<7>   New low-carbon jobs
<95>   Other (open [Q11a_open]) [open] please specify
<97>   None – there are no benefits of a carbon price for me
<98 >   Don't know

Base: randomly selected half
[Q11b] And aside from reducing climate change, what do you think are the benefits of a carbon pricing policy for your community? Please select all that apply.
<1>   Better air quality
<2>   Less road congestion
<3>   Better public health
<4>   More money raised for social goods and services (e.g. hospitals, schools)
<5>   More investment/research on renewable energy production
<6>   Better public transport
<7>   New low-carbon jobs
<95 >   Other (open [Q11b_open]) [open] please specify
<97 >   None – there are no benefits of a carbon price for my community
<98>   Don't know

Base: randomly selected half
[Q12a] What, if any, do you think would be the negative impacts of a carbon pricing policy for you personally?
Please select all that apply.
<1>   Higher prices for goods and services in general
<2>   Increased fuel / petrol costs
<3>   More expensive energy or heating
<4>   Job losses and unemployment
<5>   More inequality
<95 >   Other (open [Q12a_open]) [open] please specify
<97 >   None – there are no negative impacts of a carbon pricing policy for me
<98 >   Don't know

Base: randomly selected half
[Q12b] What, if any, do you think would be the negative impacts of a carbon pricing policy for your community?
Please select all that apply.
<1>   Higher prices for goods and services in general
<2>   Increased fuel / petrol costs
<3>   More expensive energy or heating
<4>   Job losses and unemployment
<5>   More inequality
<95 >   Other (open [Q12b_open]) [open] please specify
<97 >   None – there are no negative impacts of a carbon pricing policy for my community
<98 >   Don't know

Base: all
[Q13] To what extent do you think the following will gain or lose from a carbon pricing policy?
-[Q13_1] Low-income households
-[Q13_2] Middle income households
-[Q13_3] High income households
-[Q13_4] Small businesses
-[Q13_5] Large corporations

<1>   Gain a lot
<2>   Gain a little
<3>   Neither gain anything or lose anything
<4>   Lose a little
<5>   Lose a lot
<98>   Don't know

Randomization
A carbon pricing policy can provide the right incentives to decarbonize the entire economy. It can encourage people, businesses, and governments to consume and emit less greenhouse gases. It also can encourage companies to innovate more. Research suggests that this policy can generate substantial revenue, which policymakers can use to provide assistance to low-income households, lower taxes, invest in clean energy and climate adaptation, or for other uses.

Base: randomly selected half
[Q15a] Thinking about all of the impacts of a carbon pricing policy, to what extent do you support or oppose such a policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: randomly selected half (with additional information)
[Q15b] Thinking about all of the impacts of a carbon pricing policy, to what extent do you support or oppose such a policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: those who oppose carbon pricing policies
[Q16] Why do you oppose a carbon pricing policy in your country? Please select all that apply.
<1>   It's ineffective at reducing climate change
<2>   It harms the economy / causes job losses
<3>   It costs me money
<4>   It increases energy costs
<5>   It's not politically feasible / won't be supported
<6>   It increases inequality in society
<7>   We do not need to reduce the amount of carbon we use / do not need to tackle climate change
<8>   My country should not be paying to reduce climate change – other countries should
<95 >   Other (open [Q16_open]) [open] please specify
<98 >   Don't know

We will now present you with hypothetical situations. Please answer the following questions as best you can.

Base: randomly selected half

[Q17a] If a carbon pricing policy significantly lowers greenhouse gases but also increases the cost of living, would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: randomly selected half
[Q17b] If a carbon pricing policy significantly lowers greenhouse gases but also increases your cost of living, would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: all
[Q18] A carbon pricing policy that charges companies for their emissions would also raise the amount of money the government is able to collect and spend. Which, if any, of the following would increase your support for the policy? Please select up to three.
<1>   Helping low-income households deal with higher costs of living
<2>   Reducing other taxes on individuals
<3>   Reducing other taxes on businesses
<4>   Funding climate-related projects such as renewable energy and green technology
<5>   Funding social services such as healthcare and education
<6>   Assisting workers in industries that may lose out as a result of the tax
<95 >   Other (open [Q18_open]) [open] please specify
<98 >   Don't know
<99 >   None of the above

Base: randomly selected half
[Q19a] If a carbon pricing policy significantly lowers greenhouse gases but also decreases the number of jobs in carbon-intensive sectors (such as generating electricity by burning coal, or transporting of goods using fossil fuels), creating some job losses in the economy, would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: randomly selected half
[Q19b] If a carbon pricing policy significantly lowers greenhouse gases but also decreases the number of jobs in carbon-intensive sectors (such as generating electricity by burning coal, or transporting of goods using fossil fuels), creating some job losses in your area/neighborhood, would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose

<5>   Strongly oppose
<98>   Don't know

An example of a carbon pricing policy is an emissions trading system or cap-and-trade. In this system, companies buy permits from the government that allow them to pollute up to a certain level. Companies that do not use all their permits could sell them to other companies. Companies that need more permits can either buy them or pay to reduce the amount of carbon that other people or organizations put out. However, companies could then pass on part of the cost of having to buy permits or reduce emissions to consumers and other firms, in the form of higher prices.

Base: all
[Q20] Since an emissions trading system is one form of carbon pricing, its costs and benefits are similar to the ones presented before. Thinking about all of the impacts of an emissions trading system, to what extent would you support or oppose the policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

An example of a carbon pricing policy is a carbon tax. With a carbon tax, fuel suppliers pay a tax on the carbon content of fossil fuels that they produce or on their carbon dioxide (CO2) emissions. However, the fuel suppliers could in turn pass on part of the tax to consumers and other firms, in the form of higher prices.

Base: all
[Q22] Since a carbon tax is another form of carbon pricing, its costs and benefits are similar to the ones discussed in the earlier part of the survey. Thinking about all of the impacts of carbon taxes, to what extent would you support or oppose the policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

One way of reducing climate change is by subsidizing renewable energy and use of and research on low-carbon technologies. This involves the government providing subsidies and/or tax breaks for research into renewable energy (such as solar and wind) and encouraging energy suppliers and other companies to switch to cleaner energy sources.

Base: all
[Q24] Thinking about all of the impacts of a subsidy to renewable energy and low-carbon technologies, to what extent do you support or oppose this policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: those who oppose renewable subsides

[Q25] Why do you oppose a subsidy to renewable energy and low-carbon technologies in your country? Please select all that apply.

<1>   It's ineffective at reducing climate change
<2>   It can give some firms an unfair advantage
<3>   The costs are borne by taxpayers
<4>   The government should not be picking winners and losers
<5>   It's not politically feasible/ won't be supported
<6>   It could increase corruption/ lobbying
<7>   My country should not be paying to reduce climate change – other countries should
<8>   We do not need to reduce the amount of carbon we use/ do not need to tackle climate change
<95 >   Other (open [Q25_open]) [open] please specify
<99 >   Don't know

Base: all
[Q26a] If a subsidy to renewable energy or low-carbon technologies increases the use of clean energy sources but has to be paid for through an increase in taxes (or a decrease in government spending in other sectors of the economy), would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: all
[Q26b] If a subsidy to renewable energy and low-carbon technologies increases the use of clean energy sources but has to be paid for through an increase in the taxes that you pay (or decrease in government spending in sectors of the economy that you benefit from), would you support or oppose such a policy?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Another policy to reduce climate change is through laws and regulations that limit the amount of carbon emissions. This includes emission standards for power plants, fuel economy standards for vehicles, and energy efficiency standards for buildings and appliances. These regulations could raise the cost of energy and other goods to companies and households.

Base: all
[Q30] Thinking about all of the impacts of regulation, to what extent do you support or oppose this policy in your country?
<1>   Strongly support
<2>   Somewhat support
<3>   Neither support nor oppose
<4>   Somewhat oppose
<5>   Strongly oppose
<98>   Don't know

Base: those who oppose laws to regulate emissions
[Q31] Why do you oppose regulating emissions in your country? Please select all that apply.

<1>   It's ineffective at reducing climate change
<2>   It might not apply to all relevant sectors
<3>   They might increase the cost of living
<4>   They are difficult to enforce/monitor
<5>   It's not politically feasible / won't be supported
<6>   It could increase corruption/lobbying
<7>   The government should not interfere in the market
<8>   They can be burdensome for companies and households
<9>   My country should not be paying to reduce climate change – other countries should
<10>   We do not need to reduce the amount of carbon we use / do not need to tackle climate change
<95 >   Other (open [Q31_open] [open] please specify)
<99 >   Don't know

Base: all
[Q27] To what extent do you agree or disagree that?
-[q27_1] Policies to reduce carbon emissions will lead to new scientific breakthroughs and new industries
-[q27_2] Climate change policy will only be effective if most countries adopt measures to reduce carbon emissions
<1>   Strongly agree
<2>   Slightly agree
<3>   Neither agree nor disagree
<4>   Slightly disagree
<5>   Strongly disagree
<98>   Don't know

Base: all
[Q28a] Should countries be paying to reduce carbon emissions based on their current or accumulated historic levels of emissions?
<1>   Contributions should be based on current carbon emissions
<2>   Contributions should be based on accumulated historic carbon emissions
<99 >Don't know

Base: all
[Q28b] Which countries do you think should be paying to reduce carbon emissions?
<1>   Only rich countries should contribute to reduce carbon emissions
<2>   All countries should contribute to reduce carbon emissions
<99 >Don't know

Base: all
[Q29a] How willing, or not, are you to reduce the amount of energy that you use in order to help reduce climate change?
<1>   Very willing
<2>   Fairly willing
<3>   Not very willing
<4>   Not at all willing
<98>   Don't know

Base: all
[Q29b] How willing, or not, do you think people in your community are to reduce the amount of energy they use in order to help reduce climate change?
<1>   Very willing
<2>   Fairly willing
<3>   Not very willing
<4>   Not at all willing
<98>   Don't know

A2. Text Analysis

The text analysis is based on answers to the open-ended question "*What do you think a good climate policy should aim to achieve?*" (see [Q8] from the sample questionnaire in Appendix A1). Before answering this question, respondents were given a short paragraph explaining what climate change is and some of its potential causes. There was no information given on the effect of climate policies or their potential effects. There were just over 28,500 non-missing answers collected from the survey.

Data cleaning: The text data cleaning was done in Python, using the *"spacy"* and *"nltk"* libraries. We first removed numerical and special characters, as well as punctuation, from each of the answers. Second, we identified all the "don't know" answers. This was done by determining whether each answer contains strings such as "don't know," "don't know," "dont know," "do not know," "not known," "not sure," "no idea," "no clue," "am uncertain," "am not certain," or "idk." If any of those expressions are included in an answer with fewer than 15 words, that answer is tagged as indicating that the respondent does not know what a climate policy should do. The 15-word threshold is used to avoid tagging longer answers (which are likely to contain more information) that also include some of those expressions. Next, all answers are tokenized (split into single words), and all tokens are subsequently lemmatized (i.e., converted into a base form). This process uses lexical knowledge bases to get the correct form for each word. For example, "policies" is converted to "policy"; "am" and "is" are both converted to "be." We remove stop words, words that have fewer than three letters, and any word that appears on the question's text from each of the answers in the data. Finally, we also aggregate a few frequently used phrases to their common meaning. This process equates "reuse" and "recycle"; "use less," "cut," "minimize," "reduce use," and "reduction" are all equated to "reduce"; "take care" and "protect," "raise" and "increase"; "ensure" and "encourage"; "eliminate" and "stop"; "develop" and "build"; "car" and "vehicle"; "pay attention" and "increase awareness."

Topic Analysis: to determine the frequency at which each topic is mentioned, we look at the top 160 words (by frequency) that are mentioned across all answers. These correspond to approximately 60 percent of all words used by respondents in the survey. Our manual classification method is admittedly ad hoc. However, given the similarity across answers, other methods of topic analysis, such as the Latent Dirichlet Allocation, produced topics that include mostly the same words, making them hard to distinguish. Our method thus provides more control over the allocation of words, leading to topics that are hopefully intuitive. We then classify each of those words into four broad topics, according to the table below.

Table A2.1 Topics for Word Classification

Environment		Energy		Reduce Emissions		Awareness	
word	freq	word	freq	word	freq	word	freq
environment	1546	energy	2259	reduce	6259	people	1321
waste	1220	gas	1072	vehicle	3232	global	749
tree	968	fuel	829	emission	2783	increase	695
plastic	838	clean	826	pollution	1479	government	524
protect	819	renewable	818	stop	1113	encourage	518
air	747	fossil	615	greenhouse	675	country	515
plant	745	sustainable	491	control	421	awareness	515
nature	690	power	375	prevent	402	public	442
water	681	electric	347	pollute	365	promote	306
green	674	solar	342	consumption	365	population	261
recycle	614	alternative	272	zero	363	citizen	242
forest	560	wind	211	dioxide	306	education	163
natural	538	generation	195	footprint	228		
environmental	531	nuclear	177	law	205		
deforestation	324	electricity	170	ban	169		
recycling	284	coal	162	regulate	156		
protection	282	burn	149	regulation	148		
preserve	255						
garbage	191						
river	180						
sustainability	180						
conservation	180						
reforestation	167						
sea	167						
planting	156						
animal	151						

Note that some of the most frequent words cannot be classified into any of these topics. For example, the word "warming" is mentioned 619 times and could refer to any of the topics above; other examples include "need" and "possible" (mentioned 468 and 451 times, respectively), which are too broad to fit any of the topics.

Using the topics and word classification above, we comb through each answer and determine if it includes any of the words in Table A2.1. If an answer contains any of the words assigned to each of the four topics, we count that answer as mentioning that topic. Note that under this metric the same answer can mention multiple topics, and we do not differentiate between the number of words mentioned by topic (e.g., a long answer that includes 10 words on environmental protection is treated the same way as a short answer that mentions only one of those words). Adding "don't know" as a fifth topic to our analysis (see the data cleaning above), we are able to classify just over 75 percent of answers into at least one of the broad topics above.
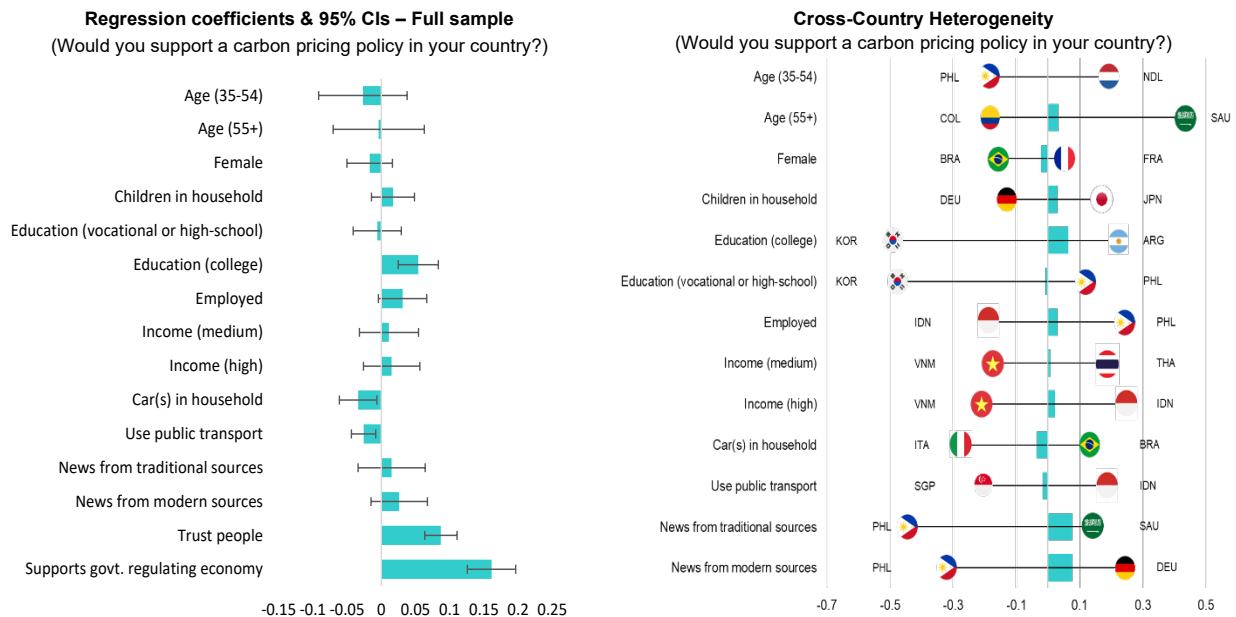
A3. Additional Figures

Figure A3.1. Drivers of Support for Carbon Pricing: Cross-Country Heterogeneity
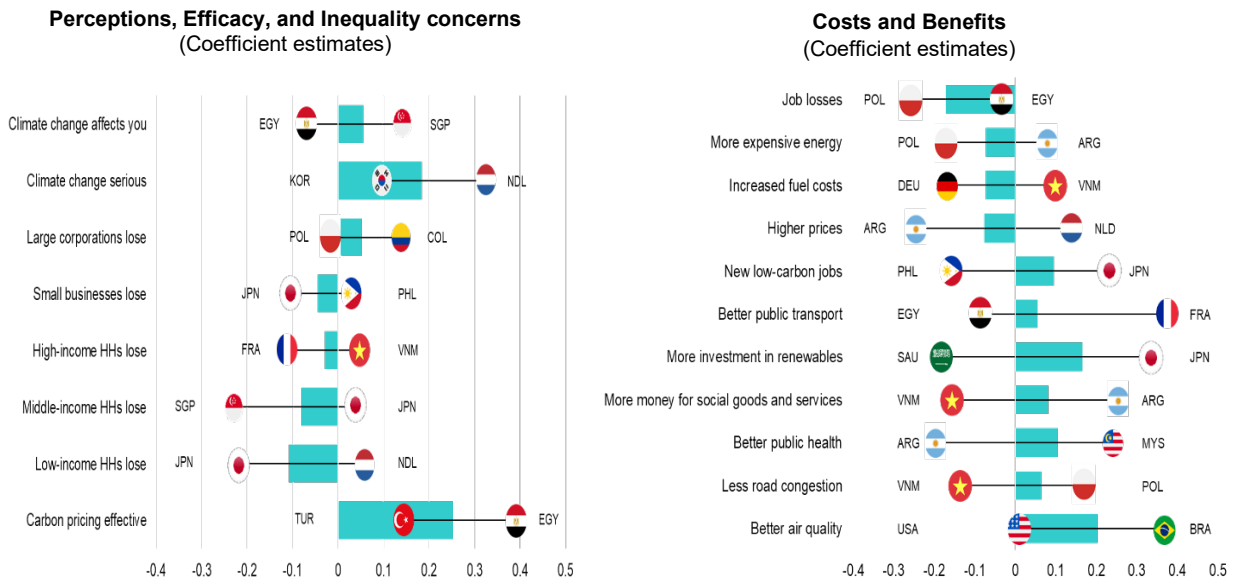
Perceptions, Efficacy, and Inequality concerns
(Coefficient estimates)

Costs and Benefits
(Coefficient estimates)

Source: IMF staff calculations based on IMF-YouGov. survey.
Note: Country-level ordinary least squares regressions on *z*-scores of the dependent variable (support for carbon pricing) with the full set of socioeconomic controls. Bars represent estimates of differences in beliefs from cross-country regressions. End points represent the smallest and largest coefficients from the regressions. HH = household.

Figure A3.2. Support for Carbon Pricing and Individual Characteristics

Regression coefficients & 95% CIs – Full sample
(Would you support a carbon pricing policy in your country?)

Cross-Country Heterogeneity
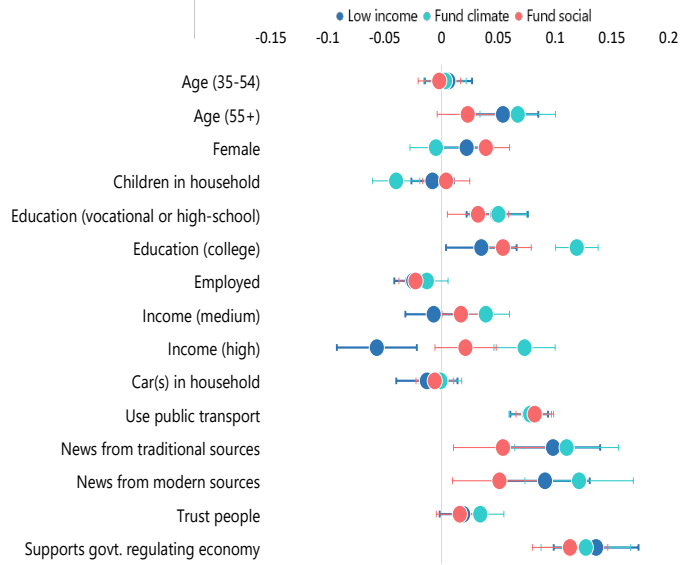(Would you support a carbon pricing policy in your country?)

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Ordinary least squares regression on *z*-scores of the dependent variable, controlling for country fixed effects. The 95 percent confidence intervals (CIs) are computed using standard errors clustered by country.

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Country-level ordinary least squares regression on *z*-scores of the dependent variable (support for carbon pricing). Bars represent estimates of differences in beliefs from cross-country regressions. End points represent the smallest and largest coefficients from the regressions.

Figure A3.3 Support for Revenue Recycling and Individual Characteristics
Regression coefficients & 95% CIs

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Ordinary least squares regression on *z*-scores of the dependent variable (support for each revenue recycling measure), controlling for country fixed effects. The 95 percent confidence intervals (CIs) are computed using standard errors clustered by country.

A4. Main Regression Results

VARIABLES	(1) Seriousness of Climate Change	(2) Support for Carbon Pricing	(3) Revenue Recycling Low-Income Households	(4) Revenue Recycling Climate Projects	(5) Revenue Recycling Social Services
Age (35-54)	0.006	-0.027	0.006	0.003	-0.002
	(0.025)	(0.021)	(0.010)	(0.009)	(0.009)
Age (55+)	-0.003	-0.004	0.054***	0.067***	0.023*
	(0.044)	(0.025)	(0.015)	(0.016)	(0.013)
Female	0.155***	-0.017*	0.022**	-0.005	0.039***
	(0.022)	(0.009)	(0.011)	(0.011)	(0.010)
Children in household	-0.008	0.017	-0.008	-0.040***	0.004
	(0.020)	(0.014)	(0.009)	(0.010)	(0.010)
Education (vocational or high school)	0.079*	-0.006	0.049***	0.050***	0.032**
	(0.043)	(0.021)	(0.013)	(0.012)	(0.013)
Education (college)	0.171***	0.054**	0.035**	0.119***	0.054***
	(0.048)	(0.022)	(0.015)	(0.009)	(0.012)
Employed	0.045**	0.031*	-0.025***	-0.013	-0.023***
	(0.020)	(0.018)	(0.008)	(0.009)	(0.007)
Income (medium)	-0.009	0.011	-0.007	0.039***	0.017**
	(0.025)	(0.015)	(0.012)	(0.010)	(0.008)
Income (high)	0.032	0.015	-0.057***	0.073***	0.021
	(0.023)	(0.018)	(0.017)	(0.013)	(0.013)
Car(s) in household	-0.125***	-0.034*	-0.013	-0.001	-0.006
	(0.022)	(0.016)	(0.013)	(0.009)	(0.008)
Use public transport	0.134***	-0.026	0.077***	0.078***	0.082***
	(0.024)	(0.017)	(0.008)	(0.009)	(0.008)
News from traditional sources	0.303***	0.015	0.098***	0.110***	0.054**
	(0.059)	(0.034)	(0.020)	(0.022)	(0.021)
News from modern sources	0.211***	0.026	0.091***	0.121***	0.051**
	(0.056)	(0.033)	(0.019)	(0.023)	(0.020)
Trust people	0.021	0.087***	0.019*	0.034***	0.016
	(0.022)	(0.012)	(0.010)	(0.010)	(0.010)
Supports govt. role in regulating economy	0.545***	0.161***	0.136***	0.127***	0.113***
	(0.075)	(0.018)	(0.018)	(0.019)	(0.016)
Carbon pricing effective		0.252***			
		(0.010)			
Low-income HHs lose		-0.110***			
		(0.013)			
Middle-income HHs lose		-0.086***			
		(0.010)			
High-income HHs lose		-0.031***			
		(0.010)			
Small businesses lose		-0.045***			
		(0.007)			

Large corporations lose		0.054***			
		(0.009)			
Better air quality		0.210***			
		(0.019)			
Less road congestion		0.071***			
		(0.016)			
Better public health		0.104***			
		(0.017)			
More money for social goods and services		0.082***			
		(0.019)			
More investment in renewables		0.176***			
		(0.015)			
Better public transport		0.069***			
		(0.023)			
New low-carbon jobs		0.084***			
		(0.018)			
Higher prices		-0.078***			
		(0.019)			
Increased fuel costs		-0.079***			
		(0.012)			
More expensive energy		-0.072***			
		(0.015)			
Job losses		-0.173***			
		(0.016)			
Heard of climate policies		0.127***			
		(0.042)			
Climate change serious		0.210***			
		(0.012)			
Climate change affects you		0.052***			
		(0.008)			
Efficacy information treatment		0.147***			
		(0.015)			
Country fixed effects	YES	YES	YES	YES	YES
Observations	27,794	22,389	27,794	27,794	27,794
R-squared	0.124	0.452	0.040	0.050	0.034

Source: IMF staff calculations based on IMF-YouGov survey.

Note: All regressions include country effects. The dependent variables are the *z*-scores of individual responses to climate Q4 (col 1), Q15a & Q15b (col 2), Q18_1 (col 3), Q18_4 (col 4), Q18_4 (col 5). Standard errors, in parentheses, are clustered at the country level. HH = household.
*$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Public Perceptions of Climate Mitigation Policies: Evidence from Cross-Country Surveys

Staff Discussion Note No. SDN/2023/002