Public Support for Climate Change Mitigation Policies

A Cross-Country Survey

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ABSTRACT: Building public support for climate mitigation is a key prerequisite to making meaningful strides toward decarbonization and achieving net-zero emissions. Using nationally representative, individual-level surveys for 28 countries, this paper identifies the current levels and drivers of support for climate mitigation policies. Controlling for individual characteristics, we find that pre-existing beliefs about policy efficacy, perceived costs and co-benefits (e.g., cleaner air), and the degree of policy progressivity are important drivers of support for carbon pricing policies. The knowledge gap about climate mitigation policies can be large, but randomized information experiments show that support increases (decreases) after individuals are introduced to new information on the benefits (potential costs) of such policies.

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Introduction

Tackling climate change is an urgent and fundamental challenge. While progress has been made in terms of policy commitments, ambitions and implementation still lag well behind what is needed to reducing greenhouse gas emissions and achieving 2015 Paris temperature goals. Garnering public buy-in for climate policies is critical to decarbonization and achieving net zero. A first step in this direction is to understand public views on climate change, what drives support for mitigation policies, and what might increase policy support.

With this goal in mind, we conduct large-scale surveys across 28 advanced and emerging market economies to examine how individual characteristics and beliefs shape climate risk perceptions and preferences for climate policies. While we consider different climate mitigation policies, we focus on support for carbon pricing. Carbon pricing is widely accepted as the most effective policy for curbing emissions (see Parry, 2019), and it has been shown to work (Martin et al., 2014, Andersson, 2019, and Abrell et al., 2022), but political acceptability of such policies is often low. In this paper, we document the survey findings; policy implications are prominently discussed in Dabla-Norris et al. (2023).

The large-scale surveys collect comprehensive information on demographic characteristics of respondents, climate risk perceptions, views on specific policies, and opinions about international burden sharing of the costs of climate mitigation policies. Information experiments shed light on what type of information can shift views on climate policies. The surveys were conducted between July and August of 2022, a time when high energy prices and their cost-of-living impacts were particularly salient for the public. We see this timing as a positive feature of the study, as respondents were more likely to have a more informed view about some of the (short-term) costs of climate mitigation policies, making the results more meaningful for policy making.

Across countries, most people surveyed were concerned about climate change, with a higher share in emerging market economies already feeling its effects compared with advanced economies. On average, concern for climate change is more prevalent among women, the educated, and those with a positive view about government regulation of the economy (a proxy for political stance). Respondents that report following the news are also more likely to be concerned about climate change, especially those that follow traditional (i.e., not online) sources. However, we also uncover substantial country-level heterogeneity across all demographic features. In fact, the impact of demographic characteristics on climate risk perceptions invariably range from positive to negative depending on the country analyzed.

However, concern alone does not translate into across-the-board support for policies. Text analysis of an open-ended question on what respondents think a good climate policy should achieve reveals that climate goals (e.g., reducing emissions) are often conflated with other environmental objectives, such as decreasing pollution or cleaning oceans and rivers. Policy attributes and knowledge about policy impacts matter, particularly for acceptability of carbon pricing. Specifically, we find that, along with climate risk perceptions, three key policy attributes are major predictors of whether people support carbon pricing: (1)

perceived effectiveness in reducing emissions, (2) perceived fairness or distributional burden, and (3) perceived co-benefits in terms of improved air quality, health outcomes, and new jobs.

Information experiments suggest that providing individuals with more information about the costs and benefits of specific policies can help bridge information gaps and shift respondents' opinions. Indeed, we find that increasing the salience of cost-of-living impacts of carbon pricing policies lowers support for carbon pricing, while providing information on policy effectiveness and revenue recycling opportunities can enhance support. Support for the most popular policy measure—subsidies for renewable energy and low carbon technologies—is also attenuated when respondents are informed about potential increases in taxes or cut in other spending which may be necessary to finance these subsidies.

The surveys also reveal strong preferences for redistribution. Respondents indicated increased support for carbon pricing if revenues are redistributed to low-income households, used to increase social spending on health care and education, or earmarked to fund green infrastructure and low-carbon technologies. However, there is substantial heterogeneity across individuals in preferences for revenue recycling. Respondents with higher educational attainment, those indicating a high level of trust in others, and those supporting a role for government intervention in the economy are all more likely to favor revenue recycling.

Finally, given that climate change mitigation is a public good, we examine how respondents view their community's willingness to act to counteract global warming versus their own. Concern about climate change is the biggest driver of willingness to change individual behavior, followed by support for climate policies. We also find that female, more educated, and older respondents are more willing to change their own behavior, while being skeptical about their community. In contrast, respondents that have children and those that express a high degree of trust in others have more positive views on their community's commitment to change behavior.

At the international level, most people in our survey believe that climate change policy will only be effective if most countries adopt measures to reduce carbon emissions. Interestingly, the majority of respondents in both advanced and emerging market economies think that all countries, not only rich ones, should pay to address climate change. Furthermore, they tend to agree that burden sharing should be based on current rather than historical emissions, though these views are more pronounced in advanced economies.

Related Literature

A growing number of studies have examined attitudes about climate change, how climate policies are perceived, and what determines their support (Bergquist et al., 2022; Bumann, 2021; Drews and van den Bergh, 2016; and Fairbrother, 2022 provide extensive reviews). Individual beliefs and concerns about climate change, socioeconomic characteristics, and economic and political ideology shape policy support. Studies have also examined the drivers of individual willingness to adopt climate-friendly behaviors and the importance of social norms (Andre et al., 2021; Carattini et al., 2019). Sparkman (2022) shows that people often misperceive national concern about climate change and support for mitigating policies in a

representative sample of U.S. adults. Bechtel et al. (2019) and Bechtel et al. (2021) show that support for climate policies depends on international coordination. We confirm many of these findings for a large sample of advanced and emerging market economies.

Our paper is also related to a large literature that has examined attitudes towards carbon taxation (Branzini and Caratini, 2017; Carattini et al., 2018; Carattini et al., 2017; IMF, 2019; and Klenert et al., 2018 provide comprehensive reviews). In general, studies highlight distributional and effectiveness concerns as key drivers of support, including in individual countries (see among others, Sommer et al., 2022 for Germany; Douenne and Fabre, 2022; for France). A number of papers show that providing information can improve support for carbon pricing. Using survey data from Canada and Switzerland, Mildenberger et al. (2022) show that providing information on the rebate from carbon tax revenues in Canada and Switzerland reduces misperceptions and increases acceptability. Maestre-Andrés et al. (2021) find that providing information on the way carbon taxation works improves support in Spain, but policy acceptability is more strongly related to perceived fairness than to perceived effectiveness. Feldhaus et al. (2022) study the role of information provision on climate policy co-benefits—as measured through an incentivized donation decision—on a large representative sample of German adults. They show that co-benefits have a positive impact on contributions for climate protection, with contributions depending on individual preferences.

Most studies on attitudes toward climate policies and information provision focus on a single country or a subset of advanced economies, but comparative cross-country surveys on drivers of support for different climate policies, especially in emerging market economies, are relatively scarce.[1] In this respect, our work is closely related to a recent study by Dechezleprêtre et al. (2022) that uses survey questions and information experiments to elicit policy views on a range of measures and determine the impact of individual characteristics and beliefs on policy preferences across 20 countries between March 2021 and March 2022. While our surveys cover a narrower range of policies, our sample includes a larger number of emerging market economies, particularly those highly exposed to climate change. We also measure support for climate policies when high energy prices are particularly salient for the public. This elicits more informed responses about the actual costs (for example, loss of purchasing power) of carbon pricing policies.

The remainder of the paper is arranged as follows: the next two sections present details about the survey instrument and our sample, and descriptive statistics. We then outline the empirical approach and present our main results. The final section presents our conclusions.

The Survey

Our survey collects data on individuals across 28 countries, with over 1,000 respondents interviewed in each country (see Annex A for the full country list). Respondents were at least 18 years old and drawn

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[1] A few recent studies have focused on cross-country comparisons, using various methodologies, ranging from the collection of voluntary responses through a game (UNDP, 2021), public opinion polls (Pew, 2015; Pew, 2021), and surveys run through Facebook (Leiserowitz et al., 2021).

from a pool of pre-profiled panelists by YouGov, a global leader in data analytics. Interviews were conducted online between July 5 and August 11, 2022, and all surveys were administered in the local language. Standard procedures to ensure data quality and integrity were applied, including testing the questionnaire on a small number of participants in pilot countries before it was rolled out.[2]

The survey participants for the analysis were selected by YouGov to ensure the national representativeness of the sample based on a host of different demographic and socioeconomic characteristics. Respondents were then invited via email. To ensure that only those selected for the survey could participate, participants were asked to enter their usernames and passwords before answering the questionnaire. Furthermore, each respondent could take the survey only once. To limit cognitive fatigue, the questionnaire was administered individually and only included questions related to the study were included.

Countries in the survey were selected to represent differences in social norms, institutions, and economic context. We include 20 out of the top-25 largest emitters of carbon dioxide in the planet (Our World in Data, 2020 statistics), as well as 9 out of the 25 countries most exposed to climate change (IMF Climate-Driven Inform Risk Indicator, Climate-Driven Hazard and Exposure component, 2022). One potential drawback of our data, however, is that the online nature of the surveys renders them less representative along rural-urban, education, and income lines in many emerging market countries (see Annex A for a table of representativeness against population statistics). As a result, observations are weighted so that aggregate results are representative of each country's age, gender, education, and regional profiles, as well as the population's employment and socioeconomic status.

Our four-part questionnaire (Figure 1 and Annex D) is designed to gather information about respondents' demographic characteristics, views on climate change, policy preferences, and opinions on international cooperation. The first section of the survey collects socioeconomic and demographic characteristics of respondents, including their age, gender, marital status, household size, education, employment status, income, source of news, car ownership, and use of public transportation. This section also collects information on individual's baseline trust in other people and their government, and their views on the role of government in economic regulation (a proxy for economic ideology).[3]

The second section collects information on respondents' concerns about the seriousness of the threat posed by climate change and its urgency. Respondents' baseline awareness of key climate policies is also assessed, as well as their knowledge about climate commitments made by their own governments. Next, we ask an open-ended question on what respondents believe the goal of a good climate policy should be. This question is designed to elucidate what individuals' specific goals are, and whether they align with current climate mitigation policies. The section closes with a set of questions that assess the

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[2] YouGov uses a panel member incentivization program in which points are accumulated and can be exchanged for cash. Surveys took on average 10–12 minutes to complete. Sampling with replacement mitigates survey nonresponse bias in our sample, with sampling weights used to maintain representativeness with respect to census information (or industry-accepted data, where census data are unavailable).

[3] Right-leaning orientation has been associated with lower support for publicly financed climate policies, particularly in the United States and United Kingdom (Ziegler, 2017; Fairbrother, 2022).

baseline support for carbon pricing, as well as respondents' views regarding its benefits, costs, and incidence across income groups and businesses.

The third section introduces the information and incidence experiments. The information experiment consists of providing (randomly selected) half of respondents with a short text that explains the efficacy of carbon pricing in reducing emissions and creating innovation-friendly incentives for businesses. The other half receives no extra information. We then reassess support for a carbon pricing policy to evaluate how this information can alter respondents' policy preferences.

The incidence experiment follows the same logic, but guides respondents through scenarios involving the costs of carbon pricing policies. For a randomly selected half of respondents, these costs are framed as personal; for the other half they are framed as general/societal. In this case, there is limited variation in the average responses across treatment and control groups and therefore the results are not presented in detail here. Finally, the section collects information on redistributive preferences regarding revenue recycling from carbon pricing and preferences for alternative climate policies such as regulations and subsidies for low-carbon technology and renewables.

In the last section of the survey, we assess respondents' perceptions of international burden sharing. This includes assessing whether participants believe that all countries need to adopt climate policies for them to be effective, and whether countries have different burdens of responsibility based on past or current emissions. Finally, we ask collect respondents' views about their own or their community's willingness to reduce energy consumption to limit climate change. Figure 1 summarizes the survey structure.

Figure 1. Structure of the Survey
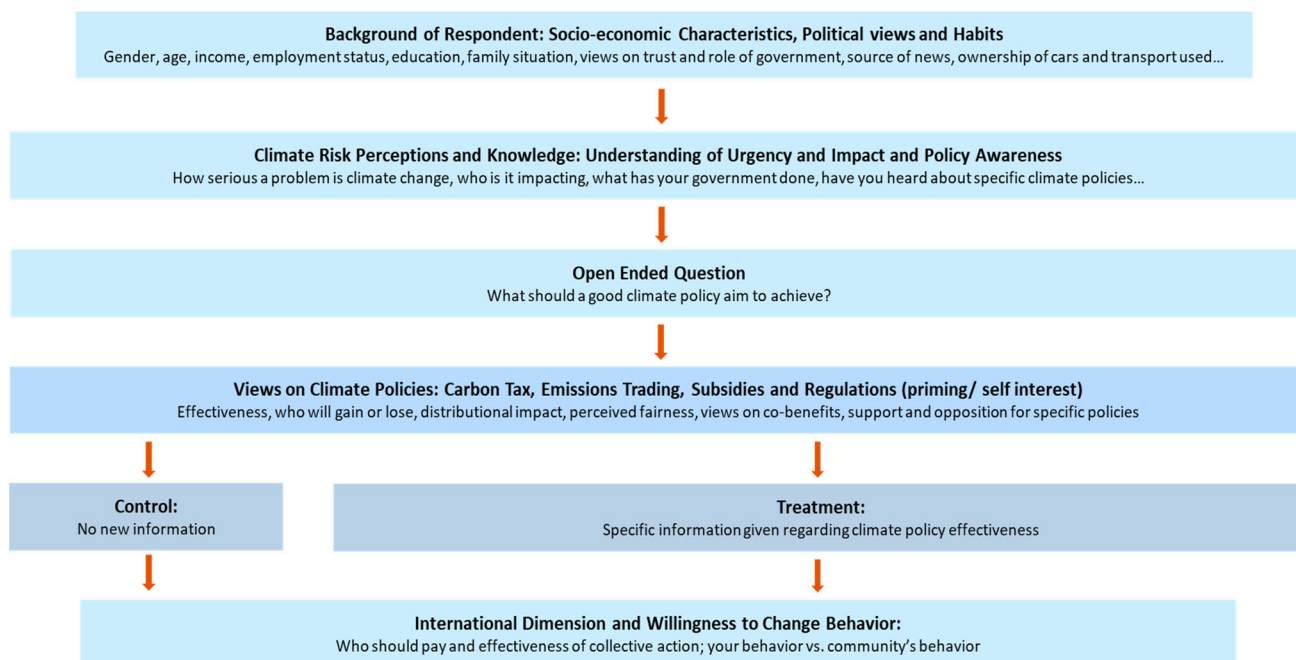
Descriptive Statistics

Across all countries, most respondents see climate change as a concern. This is shown in Figure 2, which plots the share of population that considers climate change to be a fairly serious or very serious problem. Even in the countries like the USA, Norway, or Saudi Arabia—which display some of the lowest risk perceptions for climate change—around 70 percent of the population still considers it to be an issue. In countries like the Philippines, South Korea, or Colombia, this share hovers above 90 percent.

However, beliefs about the urgency and imminence of climate change greatly vary across the world. A higher share of respondents in developing economies believe climate change is already happening and is personally affecting them and their families (Figure 3). For example, over 60 percent of respondents in Colombia, Mexico, and the Philippines, countries more vulnerable to the adverse effects of climate change, perceive the personal effects of climate change to be imminent, compared with only 20 percent in the Netherlands or Norway.

Knowledge of climate mitigation policies varies across regions and countries. Even though 20 out of the 28 countries surveyed have carbon pricing policies in place (Parry et al., 2022), fewer respondents express prior knowledge of a carbon tax or emissions trading (cap-and-trade) system compared to other policies such as laws and regulations to drive down the energy use of buildings, cars and appliances and subsidies to low-carbon technology or renewable energy (Figure 4).

Figure 2. Share of Respondents Who Think Climate Change Is a Serious Problem
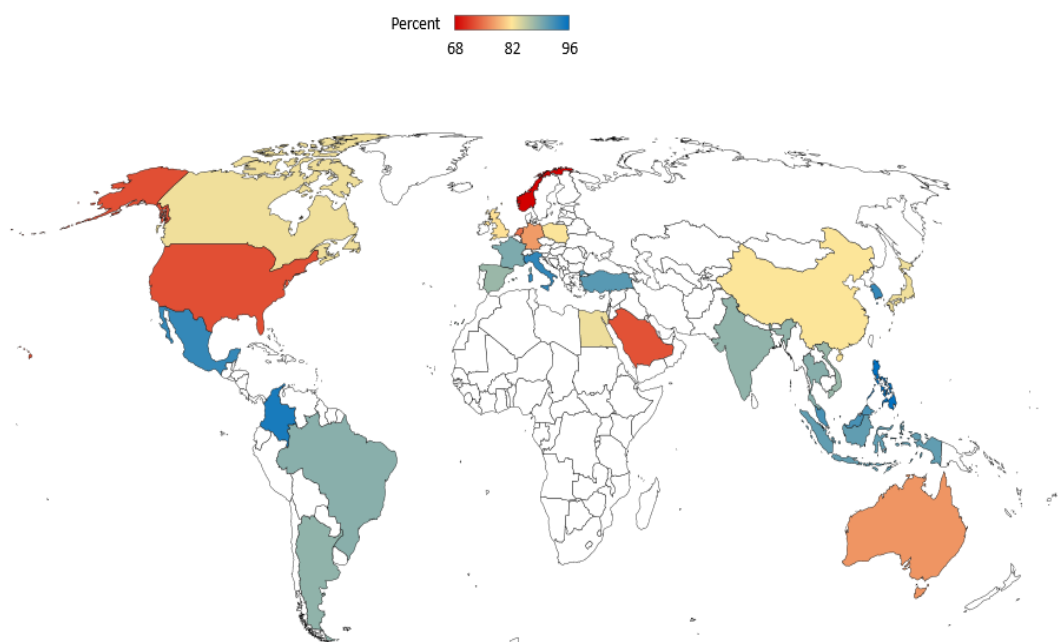
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the shares of those surveyed in each country who responded, "a very serious problem" or "fairly serious problem" to the question "In your view, how serious of a problem is climate change?"

Figure 3. Imminence of Climate Change
(Percent of respondents)
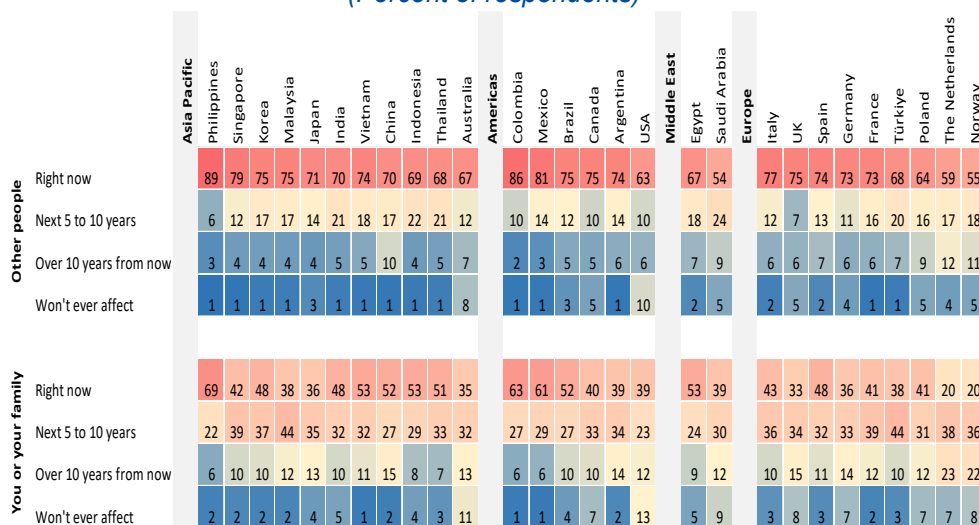
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution pf responses in each county to the questions "*Which of the following comes closest to your view of how climate change is affecting people around the world?*" (top panel) and *"Which of the following comes closest to your view of how climate change will affect you or your family?"* (bottom panel).

Figure 4 Prior Knowledge of Climate Mitigation Policies
(Percent of responses. Multiple answers possible)
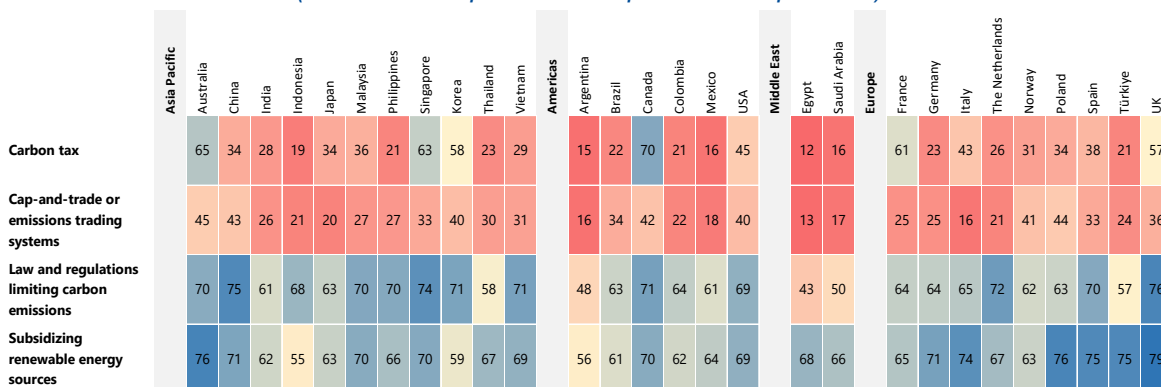
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution of responses in each country to the question "*Which, if any, of the following ways of reducing climate change have you previously heard of? Please select all that apply*". Blue denotes higher values.

Text Analysis

Next, we ask respondents an open question: "*What do you think a good climate policy should aim to achieve?*" This is designed to gather baseline information on individual beliefs about desirable policy attributes and goals, and whether these goals are aligned with existing climate change mitigation policies. Responses to the questions were translated into English, and the text is analyzed for common trends. Figure 5 panel 1 shows a word cloud with the most common words used across all answers. The size of each word is proportional to the frequency with which it is used; for better visualization, the color of each word also varies with its frequency, from blue (most frequent), to red, to green (least frequent).

We follow standard practices to identify the frequency words in text, such as removing stop words (e.g., "and" and "the") and tokenizing and lemmatizing words (see Ferrario and Stancheva, 2022). We also manually equate groups of words that have the same meaning in our context, such as "use less" and "reduce use" (see Annex C for details). Next, each word is classified into their grammatical function, and we look at the most common combinations of words in which a *verb* is followed by a *noun*. The goal in this case is to identify specific actions that a policy should take, and what it should be aimed at. Those results are shown in the form of a Sankey chart Figure 5 (panel 2).

In both cases, a clear preference for policies that reduce greenhouse gas emissions and pollution emerges. Not surprisingly, vehicle emissions and energy production receive particular attention, as transportation and electric power sectors are the two largest emitters and responsible for over 50 percent of GHG emissions in the United States alone.[4] However, Figure 5 also reveals a preference for other goals that are not necessarily related to climate change. This includes environmental concerns such as reducing the use of plastic and waste, "increasing awareness" of the risks associated with climate change, and "encouraging people" to mitigate those risks.

Figure 5. Goals of a Good Climate Policy
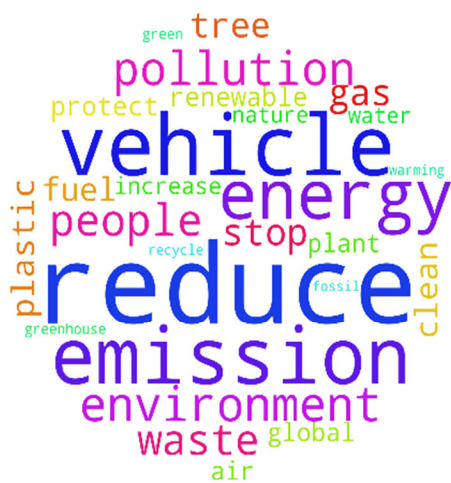
1. Word Cloud	2. Sankey Chart: Verb + Noun Combinations
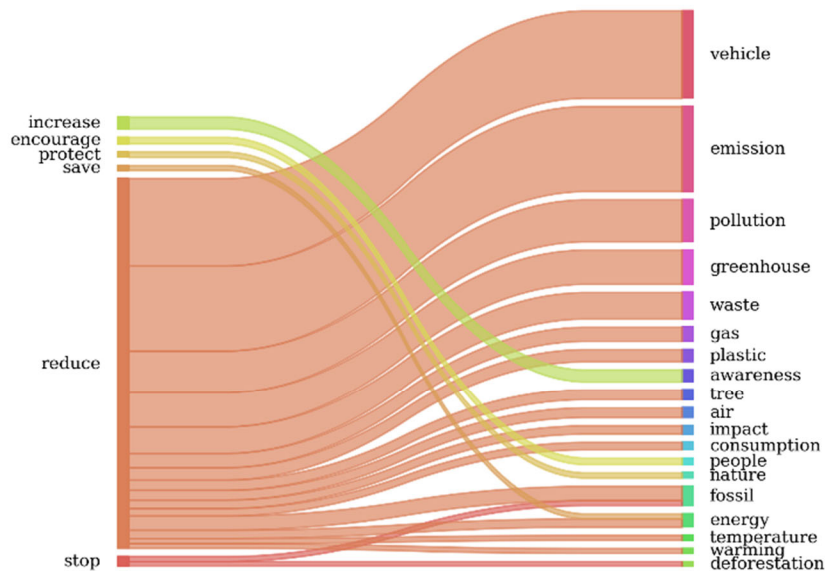
Source: IMF staff calculations based on IMF-YouGov survey.
Note: Word size and color in panel 1 are proportional to word frequency rank (color order: blue, red, green). Link size in panel 2 is proportional to combination frequency; each pair of words in the figure appears at least 50 times in the data.

Lastly, we classify all of the answers in our survey into broad topics and analyze the distribution of topics across our data (Figure 6). This classification is done by first associating each of the 160 most frequent words in the data to one of four topics: environmental protection, reducing emissions, energy generation,

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[4] See https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions (accessed May 2023).

and raising awareness. We also include a "don't know" category to capture answers that indicate lack of knowledge. This allows us to classify over 75 percent of all words used in our dataset.[5] Next, we comb through each answer in our data and determine if it includes any of the words classified into one of the four topics above. If it does, we count that answer as mentioning that particular 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.

Figure 6 shows the distribution of topics in responses by level of economic development of countries. Respondents from emerging market countries more frequently mention environmental protection, while those in advanced countries focus on emissions and the energy matrix. Another consideration is the importance of increasing awareness that climate change is a real threat, and convincing people to adapt their consumption accordingly. Interestingly, nearly 15 percent of respondents in advanced economies say that they have no opinion or do not know what a good climate policy should aim to achieve.

Figure 6. Classification of Responses into Topics
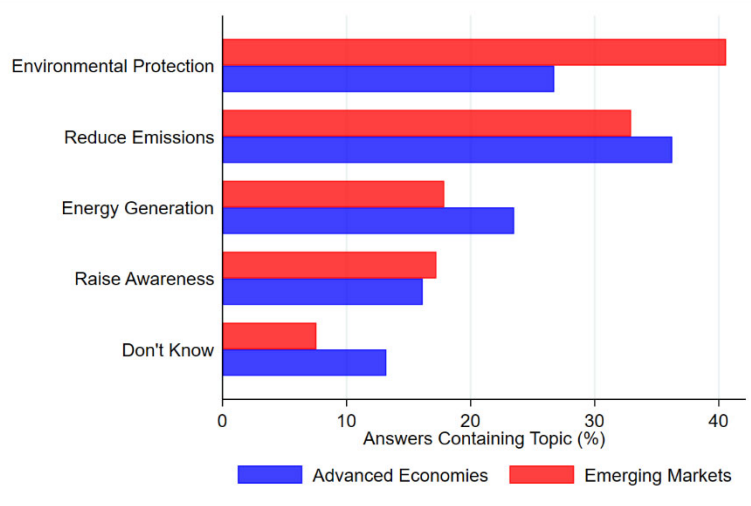
Source: IMF Staff calculations based on IMF-YouGov survey.
Note: This figure shows the share of answers that contain at least one word related to each of the four broad topics, plus the share of answers that relate that they do not know what a climate policy should do. Note that answers can be classified into more than one topic.

Drivers of Support for Climate Mitigating Policies

Empirical Methodology

We study the drivers of perceptions of climate change and support of climate policies using the following regressions:

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[5] This process makes our classification admittedly subjective. 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 more intuitive. Table C.1 in Annex C for details the classification of each word into its respective topic.

$$y_{i,c} = \beta X_{i,c} + \gamma_c + \varepsilon_{i,c}$$

where $y_{i,c}$ is the response for individual i living in country c; $X_{i,c}$ is a set of covariates of interest in each specification; γ_c are country fixed-effects that control for the level of development, exposure to climate-related events, and any other country-specific characteristics; and $\varepsilon_{i,c}$ is a residual. Most of the regressors $X_{i,c}$ take the form of indicator variables. Data are weighted by sampling weights that align key demographics in our survey to the general population in each country, and standard errors are clustered at the country level. In some instances, we estimate the above regression above on a country-by-country basis to capture heterogeneity across locations (in those cases, country fixed-effects are excluded).

When survey questions that involve answers on a rating scale are considered, z-scores are used as the dependent variable $y_{i,c}$. These are calculated on a country-by-country basis by subtracting the sample mean and dividing by the sample standard deviation of each variable. The advantage of doing so is that we avoid biases that arise when there is a different disposition for taking strong political stances among people in different countries (for e.g., for cultural reasons). The disadvantage of the z-score is that coefficients are interpreted in units of standard deviations, which can make their interpretation more challenging. As a result, when analyzing the determinants of support for carbon pricing, a dominance analysis of the relative importance of the various (groups of) regressors is also conducted.

Perceptions of Climate Change

We first examine how socioeconomic characteristics, lifestyle, and energy usage correlate with climate risk perceptions across and within countries. On average, climate change concerns are more prevalent for females, the educated, and those who support government's role in regulating the economy.[6] We also find stronger concerns from respondents who follow the news, especially traditional news sources such as newspaper, television, and radio. Opposition to climate policies is strongly correlated with lower availability of public transportation and greater reliance on cars (Figure 7, panel 1).

We find considerable cross-country heterogeneity in the drivers of climate risk perceptions. For example, climate concerns are higher among younger respondents in Australia and Canada. In Argentina the opposite is true, with older respondents systematically more concerned about climate change than younger ones (Figure 7, panel 2). In fact, we find country-specific effects in either direction for most of the demographic variables in the data. This also includes characteristics that do not have a statistically significant impact on climate perception in the full sample. One example is household income: while not systematically associated with climate concern, there a few notable exceptions (Australia, the Philippines, and the United States) in which high income households are less concerned about climate change than lower-income households.

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[6] The gender gap in climate risk perceptions is in line with existing research (Xiao and McCright, 2014). Various theoretical reasons for this gap have been posited, including differential risk preferences and value orientation (for example, altruism, social values), among others.

Figure 7. Climate Concern and Individual Characteristics
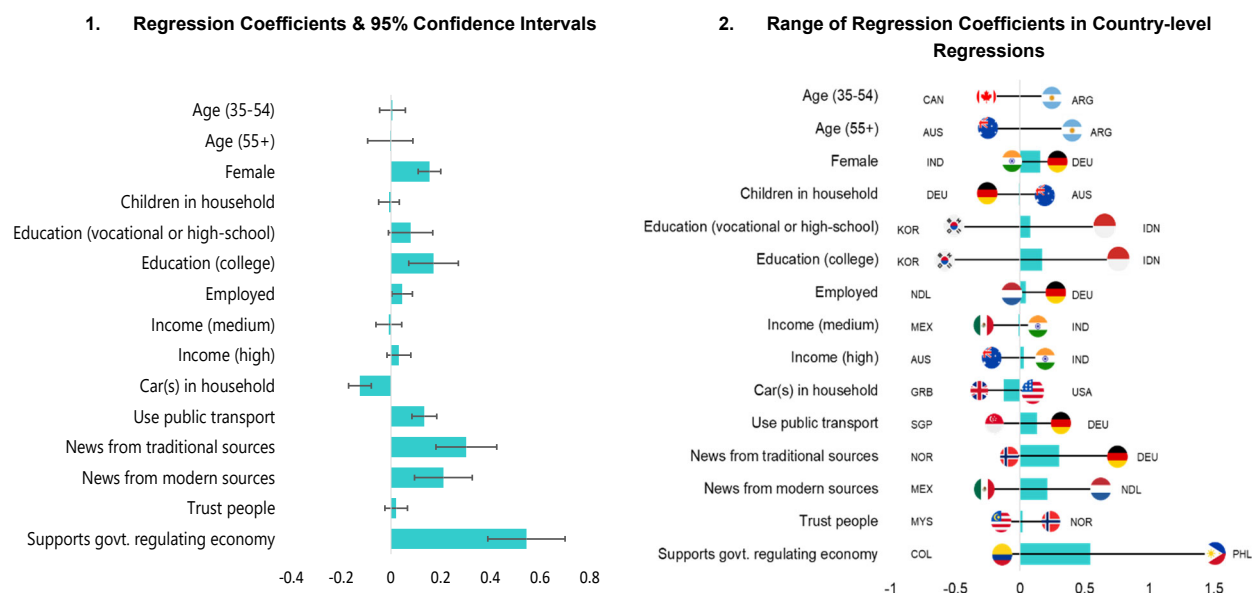
1. **Regression Coefficients & 95% Confidence Intervals**

2. **Range of Regression Coefficients in Country-level Regressions**

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Ordinary least squares regression on *z*-scores of the dependent variable (seriousness of climate change) with country fixed effects are in panel 1 and analogous country-level regressions in panel 2. Panel 2 reports the range of coefficient estimates by country (country flags). In panel 1, the 95 percent confidence intervals are computed using standard errors clustered by country. Data labels in panel 2 use International Organization for Standardization (ISO) country codes.

Perceptions of Climate Policies

Next, we assess the baseline support for a range of climate mitigation policies across countries. Overall, the highest level of support is seen for subsidies to low-carbon technologies and renewable energy (Figure 8; see also Dechezleprêtre et al., 2022). This is particularly evident in Europe, where high energy prices resulted in a considerable increase in the cost of living at the time the surveys were conducted. Carbon pricing and regulations on emissions have a comparable level of support across most countries. When comparing overall support for all policies across regions, we find that it is highest in Asia, a region where many of the country's most vulnerable to climate change are located.

We next turn to the drivers of support for climate policies, zooming in on carbon pricing. Specifically, we examine which beliefs and characteristics are correlated with support for the policy, as well as the role that information plays. Our analysis distinguishes between advanced and emerging market economies, but we note that country-specific context could affect the levels of support for climate policies.

Figure 9 shows the results of the empirical analysis for the entire sample of countries, where support for carbon pricing is regressed against a rich set of individual-level characteristics, beliefs, and country fixed effects (see Table in Annex A for the full regression results). We find that there is a significant positive association between climate risk perceptions and support for carbon pricing policies, suggesting that respondents who view climate change as a more serious threat are also more likely to support carbon

pricing. There is also a significant positive association between the perception that the carbon pricing policy is effective at reducing emissions and the strength of support for the policy.

Figure 8. Support for Mitigation Policies
(Percent of favorable responses)

	Asia Pacific	Australia	China	India	Indonesia	Japan	Malaysia	Philippines	Singapore	Korea	Thailand	Vietnam	Americas	Argentina	Brazil	Canada	Colombia	Mexico	USA	Middle East	Egypt	Saudi Arabia	Europe	France	Germany	Italy	The Netherlands	Norway	Poland	Spain	Türkiye	UK
Carbon pricing		52	55	67	46	39	58	68	58	60	60	74		41	62	50	53	58	44		43	46		44	29	45	40	32	29	44	56	41
Subsidies to low-carbon technologies/renewables		65	65	66	62	45	66	73	68	61	69	71		56	65	62	69	69	53		55	57		58	54	65	55	50	60	65	61	62
Regulations limiting emissions		52	50	64	44	31	53	60	48	52	56	64		48	50	50	54	56	43		35	41		44	35	40	38	34	33	43	48	44

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Each row in this figure shows the share of favorable responses in each country to the questions "*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*?", "*Thinking about all the impacts of a subsidy to renewable energy, to what extent do you support or oppose this policy in your country*?", and "*Thinking about all of the impacts of regulation, to what extent do you support or oppose this policy in your country*?" respectively.

Figure 9. Drivers of Support for Carbon Pricing: Policy Attributes, Perceptions, and Belief
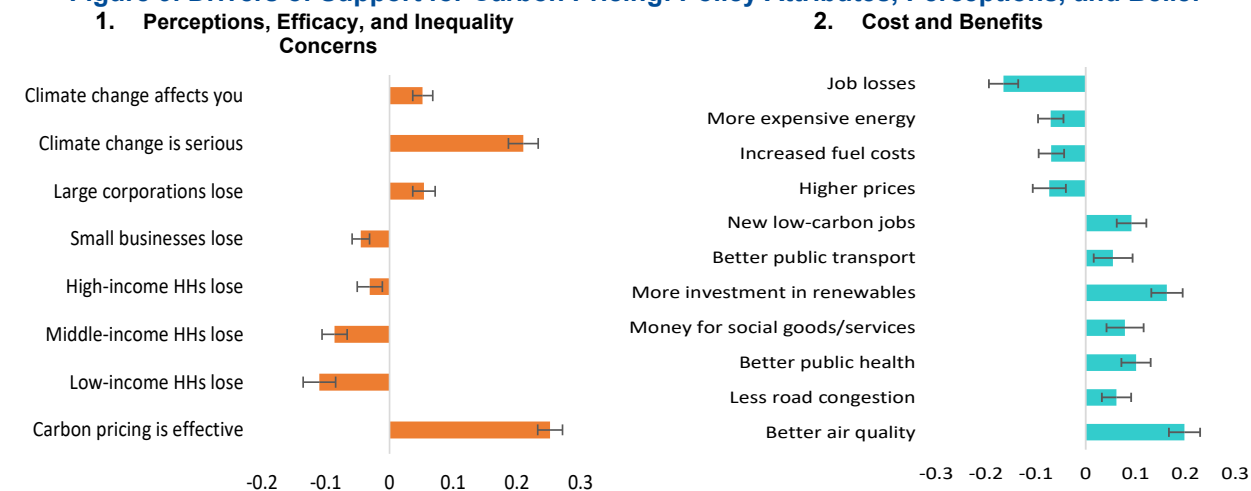
1. Perceptions, Efficacy, and Inequality Concerns

2. Cost and Benefits

Source: IMF staff calculations based on IMF-YouGov survey.
Note: Ordinary least squares regression is on *z*-scores of the dependent variable (support for carbon pricing) with the full set of socioeconomic controls and country fixed effects. The 95 percent confidence intervals are computed using standard errors clustered by country. HH = household.

Concerns about the distributional impact of carbon pricing weaken support: if respondents fear that carbon pricing policies will harm lower-income or middle-income households and small businesses, they

are less likely to support these policies. Figure 9 panel 2 focuses on the perceived costs and benefits of carbon pricing policies. Not surprisingly, cost-of-living impacts (reflected in the prices of energy, fuel, and overall inflation) and concerns about job losses lower support. However, we find that policy co-benefits also resonate with the public, particularly improved air quality, investment in renewable energy, and improved public health.

As in the case of climate risk perceptions, there is significant heterogeneity across countries in the drivers of support for carbon pricing (Figure 10). Distributional concerns dampen support for carbon pricing policies more in emerging market economies like Brazil, India, and the Philippines than in advanced economies such as the Netherlands, Singapore, and the United Kingdom. Within advanced economies, Japan and Spain are notable exceptions, as distributional concerns significantly lower support for carbon pricing policies. In several European countries, such as France, Italy, Norway, and Poland, the perception of job losses from carbon pricing policies also lowers support, while employment concerns are less significant correlates in Brazil, Egypt, the Philippines, and Saudi Arabia. Concerns about higher fuel costs are also more strongly correlated with lack of support in Germany and the United States relative to other countries. Improved air quality is a significant driver of support in Brazil, Mexico, and Spain, while respondents in Japan, Norway and Australia are more inclined to support carbon pricing if it incentivizes investment in renewable energy.

Figure 10. Driver of Support for Carbon Pricing: Cross-Country heterogeneity

1. Perceptions, Efficacy, and Inequality concerns
(Coefficient estimates)

2. Costs and Benefits
(Coefficient estimates)
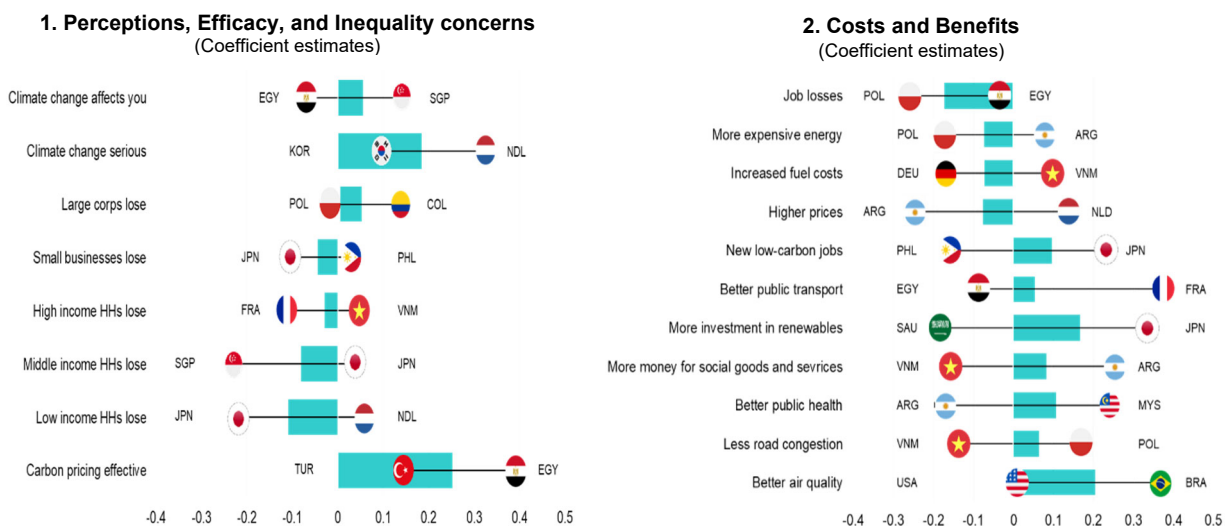
IMF Staff calculations based on IMF-YouGov survey.
Note: Country-level OLS regressions on z-scores of the dependent variable (support for carbon pricing) will the full set of socio-economic controls. Bars represent estimates of differences in beliefs from cross-country regressions. End points represent the smallest and largest coefficients from the regressions.

To assess which of these beliefs can predict support for carbon pricing, we conduct a dominance analysis that shows the share of overall variance that is explained by each individual factor (or group of factors). We find support for climate change is driven primarily by perceptions of policy efficacy and concerns about climate change, with equity and fairness considerations and policy benefits close behind (Figure

11, panel 1). Beliefs in the effectiveness of carbon pricing in reducing emissions and perceptions of policy benefits together account for about 45 percent of the variation in support. Across countries, equity and distributional concerns account for another 20 percent of the variation in policy views.

Cost, affordability, distributional concerns, and beliefs about lack of policy effectiveness are also the most frequently cited reasons for opposing carbon pricing among respondents who do not support carbon pricing policies (Figure 11, panel 2). An analysis of the contribution of different beliefs to overall support for carbon pricing across countries (not shown here, but available upon request) reveals that efficacy and equity concerns are the most important contributors in the emerging markets sample. By contrast, concerns about policy efficacy and climate risk perceptions are major predictors of policy views in advanced economies.

Overall, our cross-country results confirm some of the patterns observed for specific countries, where the importance of perceived fairness, effectiveness, and self-interest has been highlighted. The results are also similar to the study by Dechezleprêtre et al. (2022). However, in contrast to their study, we find that perceptions of policy costs explain a much smaller share of the variation in support for carbon pricing. Our findings are also in agreement with Clements et al. (2013) and Coady et al. (2018), who identify key ingredients for successful energy reforms, including extensive communication programs, clear use of revenues, and robust assistance for vulnerable groups.

Figure 11. Drivers of Support for Carbon Pricing: Policy Attributes, Perceptions, and Beliefs

1. Relative Importance of Explanatory Variables in Support for Carbon Pricing

2. Reasons for not supporting carbon pricing policies
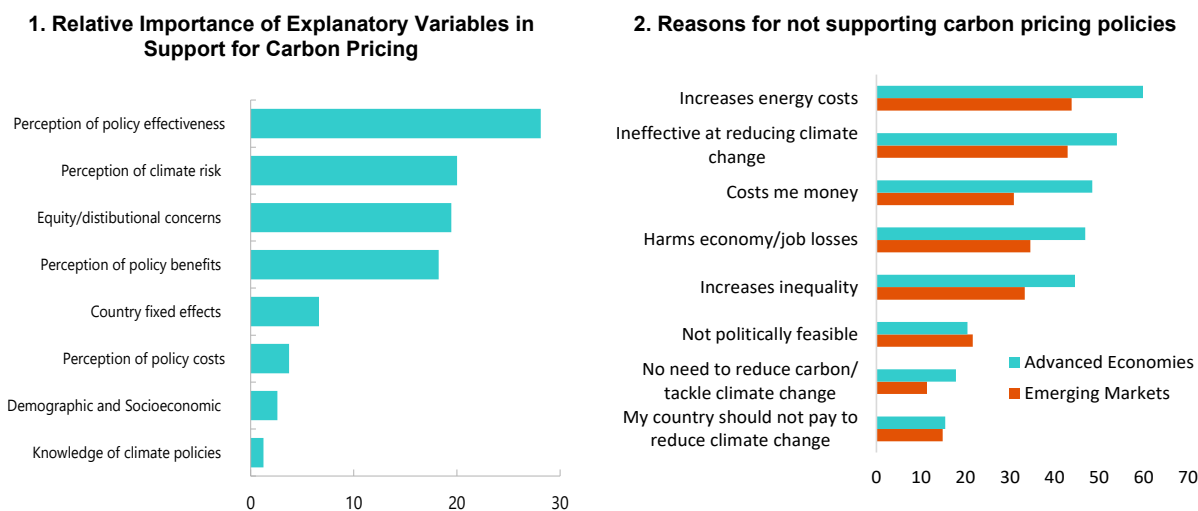
Source: IMF Staff calculations based on IMF-YouGov survey.
Note: The figure on left shows the results of a dominance analysis evaluating the share of variance explained by different sets of beliefs and perceptions in the OLS regression of the determinants of support for carbon pricing. The figure on the right shows the response rate (in percentage of respondents) to the question *'Why do you oppose a carbon pricing policy in your country'*, for the sample of respondents who oppose carbon pricing.

The surveys also allow us to identify which individual characteristics and beliefs are related to support for carbon pricing. College-educated and employed respondents are more supportive of carbon pricing,

although the positive relationship with education is notably reversed in Korea and Japan (Figure 12). Support for carbon pricing policies is also stronger for individuals who express more trust in other people, and among those respondents who support a role for government in regulating the economy. Opposition to carbon pricing is higher among females, although this result is driven primarily by the emerging market economies subsample and is not a significant predictor of support in advanced economies. Greater reliance on cars also correlates with reduced support for carbon pricing, primarily in advanced economies such as Italy, Germany, and the United States, while the use of public transportation in countries such as Argentina, Singapore, and the United Kingdom dampens support for carbon pricing. Although statistically significant, socio-economic, and demographic characteristics explain only a small proportion (less than 5 percent) of the overall variation in policy views.

Figure 12. Drivers of Support for Carbon Pricing: Role of Individual Characteristics
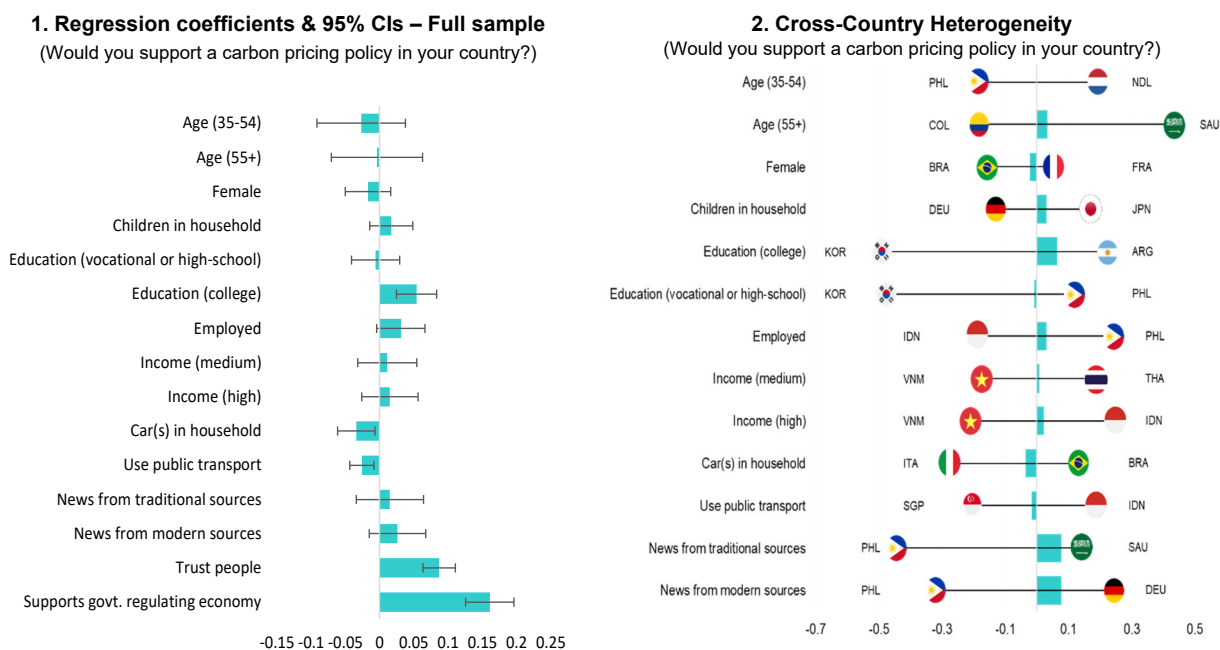
1. Regression coefficients & 95% CIs – Full sample
(Would you support a carbon pricing policy in your country?)

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

Source: IMF Staff calculations based on IMF-YouGov survey.
Note: OLS regression on z-scores of the dependent variable; controlling for country fixed effects. The 95 percent confidence intervals are computed using standard errors clustered by country.

Source: IMF Staff calculations based on IMF-YouGov survey.
Note: Country-level OLS regression on z-scores of the dependent variable. Bars represent estimates of differences in beliefs from cross-country regressions. End points represent the smallest and largest coefficients from the regressions.

At first glance, carbon pricing appears to be among the least popular climate mitigation policies. However, support for carbon pricing increase if revenues are recycled. The literature has broadly explored three revenue recycling strategies: the earmarking of revenues to support emission reduction projects, the redistribution of revenues to achieve a less fiscally regressive outcome, and the reduction of other taxes

to achieve a revenue-neutral outcome (IMF, 2019; Klenert et al., 2018; Carattini et al., 2018).[7] Consistent with studies that find a positive relationship between policy progressivity and acceptability, a majority of respondents think that revenues should be used to help harder-hit, low-income households, to increase social spending on healthcare and education, or be earmarked for low-carbon technologies and renewables (Figure 13). Again, there is significant cross-country variation in support for different recycling schemes. In Japan, South Korea, Singapore and Canada, a high share of respondents also supports offsetting cuts to other taxes. Over a third of respondents in China, Australia, Vietnam, and United States support assisting workers in affected industries.

Figure 13. Revenue Recycling to Increase Support for Carbon Pricing
(multiple answers possible)

	Australia	China	India	Indonesia	Japan	Malaysia	Philippines	Singapore	Korea	Thailand	Vietnam	Argentina	Brazil	Canada	Colombia	Mexico	USA	Egypt	Saudi Arabia	France	Germany	Italy	Netherlands	Norway	Poland	Spain	Turkey	UK
Helping low-income households	54	51	37	48	36	55	42	61	48	51	47	34	46	52	43	38	43	42	43	38	43	49	51	41	39	45	42	54
Climate projects (renewables/green technology)	43	44	41	40	28	45	51	43	46	40	43	40	38	37	54	52	32	29	31	39	37	42	37	30	41	43	40	41
Social services (healthcare/education)	39	38	34	46	30	37	44	37	28	38	41	40	38	40	51	43	30	32	31	31	30	29	39	31	37	43	32	41
Reducing taxes on individuals	29	37	33	24	38	39	29	41	42	38	32	27	30	37	20	28	24	28	31	36	28	36	28	29	32	31	29	27
Assisting workers in affected industries	28	33	23	24	21	22	26	27	26	25	34	24	27	22	25	25	23	23	24	26	20	27	21	15	18	27	26	22
Reducing taxes on businesses	13	19	21	20	11	22	17	16	15	25	23	12	18	11	12	10	12	15	19	15	11	18	11	16	13	11	16	9

Source: IMF Staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution of responses (in percentage points) to the question "*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.*"

Beliefs about equity considerations correlate with individual characteristics. To examine this, we separately regress support for three main types of revenue recycling—helping low-income households, funding climate projects, and increasing social spending on health and education—against demographic and socio-economic characteristics, controlling for country fixed effects (Figure 14). Wealthier, more educated individuals tend to favor using revenues from carbon pricing to fund renewable energy and low-carbon technologies compared to lower income and less educated individuals. Respondents more supportive of the government's regulation of the economy are more likely to support revenue recycling to help low-income households. These results suggest that group differences within countries can shape preferences for revenue recycling.

Support for Other Climate Policies

As discussed earlier (Figure 8), subsidies for low carbon technologies and renewables are the most favored climate policy across countries. For instance, in Europe and the United States, it is the only policy supported by over half the respondents. Subsidies for green technologies and renewables receive high

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[7] Implementation details can also impact public support. For example, Bourgeois et al. (2021) find that carbon taxes are best accepted if revenues are earmarked in a transparent way. Earmarking is also not necessarily the first best from an economic efficiency standpoint, although it may be optimal from a political economy perspective (Brett and Keen, 2000).

levels of support as technological advances are seen in many countries as one of the most important tools for solving the climate crisis (UNFCCC, 2022). However, another important factor that plays in favor of subsidies is that, while their benefits are well understood, their costs tend to be less salient (Fairbrother, 2022)—a result we confirm in the next section. Among respondents who do not support subsidies for low-carbon technologies and renewables and regulations, costs of living concerns are the most frequently cited reason for opposition, followed by concerns about corruption and policy effectiveness (Figure 15). Respondents also pointed to the unfair advantage conferred to some firms in the case of subsidies and difficulties in enforcing and monitoring regulations as additional concerns.

Figure 14. Support for Revenue Recycling and Individual Characteristics
Regression coefficients & 95% CIs
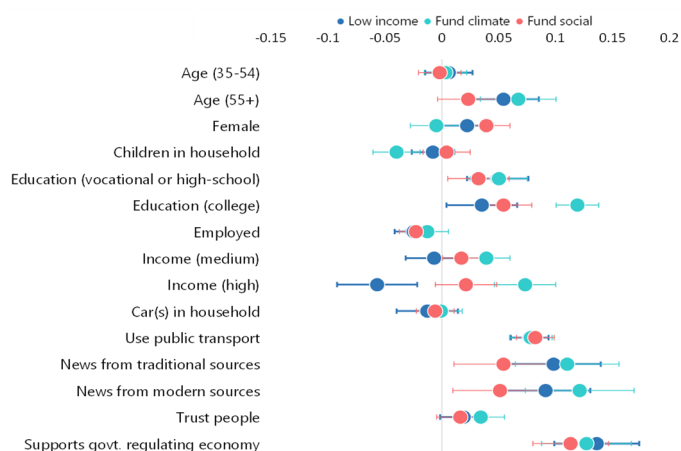
Source: IMF Staff calculations based on IMF-YouGov survey.
Note: OLS regression on z-scores of the dependent variable (support for each revenue recycling measure) controlling for country fixed effects. The 95 percent confidence intervals are computed using standard errors clustered by country.

Figure 15. Reasons for Not Supporting Other Climate Policies
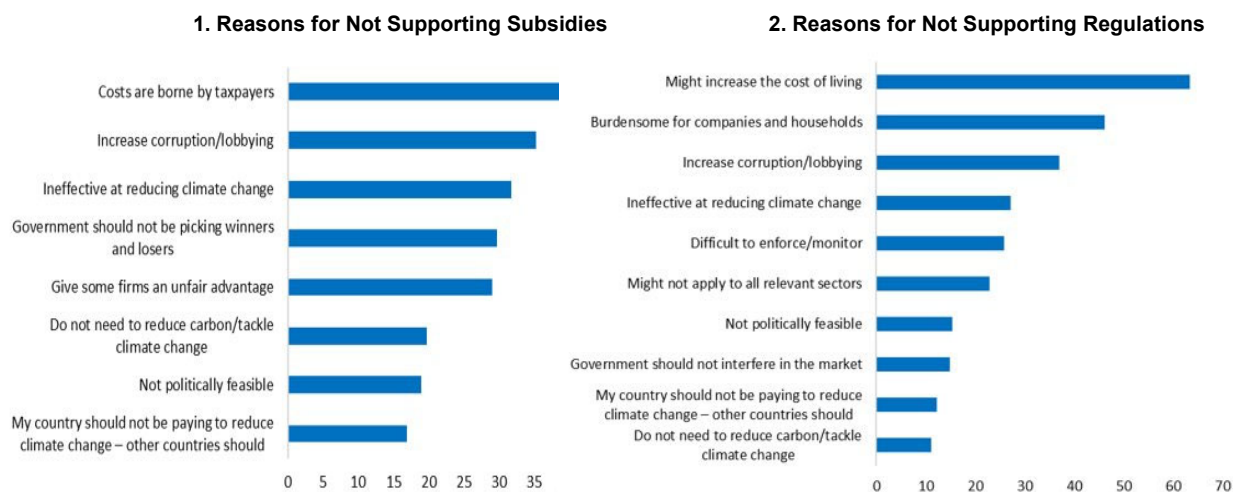
1. Reasons for Not Supporting Subsidies   **2. Reasons for Not Supporting Regulations**

Source: IMF Staff calculations based on IMF-YouGov survey.
Note: this figure shows the distribution of responses (in percentage points) to the questions: "*Why do you oppose a subsidy to renewable energy in your country? Please select all that apply*". "*Why do you oppose regulating emissions in your country? Please select all that apply*". Excluding open ended response and don't know.

Information Experiments

Knowledge and understanding of climate policies can shape support for mitigation policies. However, there is still a sizable information gap to be filled in most countries (Figure B.1 in Annex B). For example, fewer than 20 percent of respondents in Indonesia say that they know what a carbon tax is, even though one was slated for implementation in early 2022. The lack of public awareness is not confined to emerging market economies—an emission trading system was established in the European Union in 2005, and yet less than a quarter of respondents in several EU countries reported to have heard of such a policy. Similarly, people may not believe carbon pricing can reduce emissions through changes in behavior toward cleaner alternatives or that such a policy can be progressive. There is also a sizable share of respondents in many countries with no clear opinions about climate mitigation policies. For example, about half of the respondents in Egypt, Indonesia, and Japan neither supported nor opposed a carbon pricing policy (Figure B.2).

To assess the impact of information on policy support, we conduct three experiments. First, before asking about support for carbon pricing, we randomly provide half of them with a short paragraph describing the effectiveness of carbon pricing in reducing emissions and the societal benefits that can come from recycling revenues raised with this policy. We find that providing such information increases support for carbon pricing by almost 7 percentage points (Figure 16, panel 1). The information mostly shifts neutral or negative policy views towards a favorable stance. We also find substantial heterogeneity in the impact of the information intervention across countries. In particular, the impact of the information treatment in enhancing support for carbon pricing is higher in countries where there is little preexisting knowledge of carbon taxes as a carbon policy instrument (Figure 16, panel 2).

We next test how support for mitigation policies changes when people are made aware of the potential implications for them personally via financial trade-offs in terms of increased prices or taxes.[8] Support for carbon pricing falls by about 9 percentage points when respondents are presented with cost implications (Figure 17, panel 1). This result also holds for popular policies such as subsidies for renewable energy and low-carbon technologies. When the cost implications of subsidies are made salient by telling respondents that public support could result in an increase in their taxes or a decrease in other government expenditures, the share of respondents' favorable toward the policy declines from 62 to 42 percent (Figure 17, panel 2).

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[8] There is no randomization in this exercise—after having reported their initial stance toward the policy, all respondents are given the additional piece of information on policy costs and then asked again about their support for the policy.

Figure 16. Carbon Pricing Efficacy Information Treatment

1. Carbon Pricing Efficacy Treatment

2. Country-Level Heterogeneity
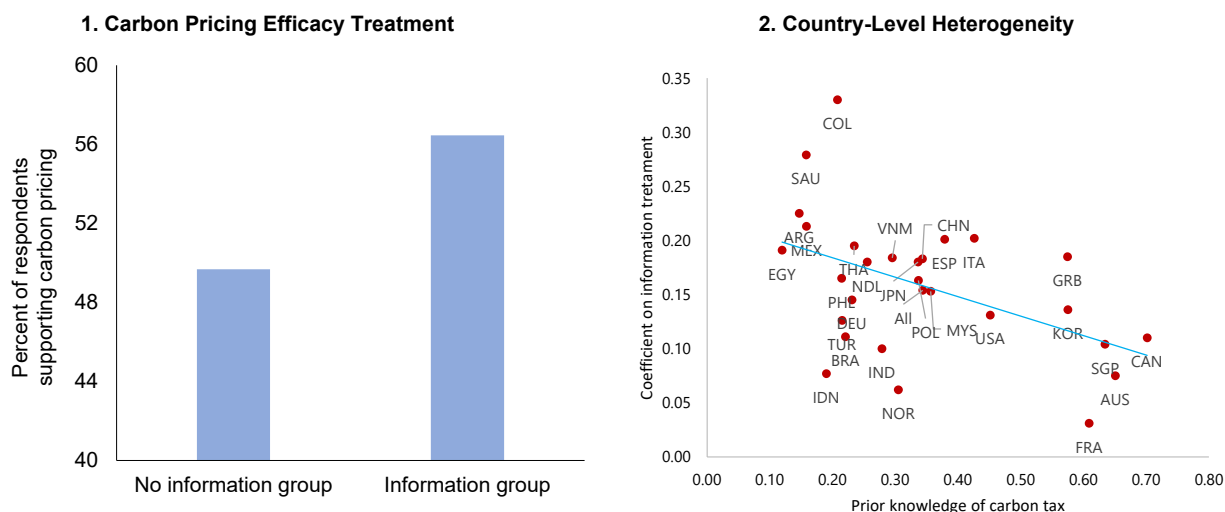
Source: IMF staff calculations based on IMF-YouGov survey.
Note: Panel 1 shows the shift in the share of respondents supporting carbon pricing across two random halves of our sample, one of which (Information group) is told that carbon pricing provides correct incentives to decarbonize and can encourage innovation and that revenues can be recycled. The effect of the information treatment on respondents' support is statistically significant (z= 11.35, p= 0.00). Panel 2 shows a country-level scatterplot of respondents' prior knowledge of carbon pricing (*x*-axis) against the size of the country-level treatment effect from information provision (y-axis). Data labels in panel 2 use International Organization for Standardization (ISO) country codes.

Figure 17. Information on Cost Implications of Carbon Pricing and Subsidies

1.   Carbon Pricing
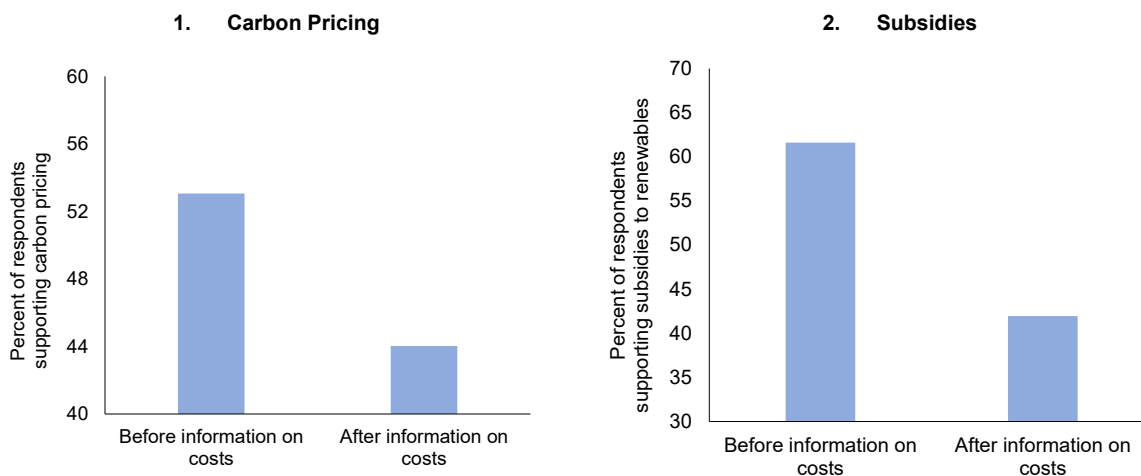
2.   Subsidies

Source: IMF staff calculations based on IMF-YouGov survey.
Note: The panels show the shift in the share of respondents supporting carbon pricing (panel 1) and subsidies to renewable energy (panel 2) as a result of additional information on the cost implication of each policy. Carbon pricing treatment informs respondents that the policy reduces greenhouse gases but also increases the cost of living. The subsidy treatment informs respondents that the subsidy for low-carbon technologies and renewables must be paid for with an increase in taxes (or decrease in other government spending). Declines in support for both policies are statistically significant (carbon pricing: z =-28.83, p=0.00; subsidies: z=-54.52, p=0.00).

Climate Action: Community and Global Support

Climate change mitigation is a public good, requiring collective action to succeed. In this section, we first examine respondent's individual willingness to adopt climate-friendly practices. We contrast this with how willing they think others in their community are to make behavioral changes. Finally, we gauge support for international actions.

We ask survey participants whether they are willing to decrease the amount of energy they use to help reduce climate change. We also inquire whether they think their community is willing to do the same. We find that while a vast majority of respondents (over 75 percent) are willing to engage in energy-saving behavior, they have less trust in their community's willingness to do the same (only 51 percent of respondents think their community will act).

Examining correlates of the (perceived) willingness to change behavior, we find that females, older, and more educated respondents report a higher personal willingness to act and are skeptical about their community's intentions. In contrast, respondents with higher levels of trust in people hold more positive views about their community's willingness to reduce energy consumption. Having children in the household and owning a car correlates with a higher inclination to think that their community would act—rather than acting themselves—while the opposite is true for people who regularly use public transport. Support for climate policies (in particular, carbon pricing) is associated with higher willingness to reduce energy consumption, both at the individual and at the (perceived) community level. Finally, climate risk perceptions make people more prone to take individual action rather than to rely on their community to act (Figure 18, panel 1). Overall, climate risk perceptions and, to a lesser extent, support for climate policies, are the most important drivers of personal willingness to act (Figure 18, panel 2).

Carbon Pricing and International Action

A vast majority of respondents in our survey think that climate change policy will only be effective if most countries adopt measures to reduce carbon emissions, ranging from around 60 percent in Japan to 80 percent in the United Kingdom (Figure 19). One the one hand, this could drive down support for climate policies if people think such coordination is unlikely. On the hand, it also suggests that people might be more willing to adopt costly policies if other countries do so as well, both because the efforts of other countries make it more likely that policies will be effective and because those efforts resonate on fairness grounds.[9]

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[9] Some recent studies, however, find that people prefer unilateral actions, suggesting that public support for costly climate policies may not meaningfully depend on whether or not other countries are also contributing (Mildenberger, 2019; Beiser-McGrath and Bernauer, 2019).

Figure 18. Willingness to Reduce Energy Consumption – Individual vs. Community

1.   Regression Coefficients and 95% Confidence Intervals

2.   Relative Importance of Explanatory Variables in Determining Individual Willingness to Act
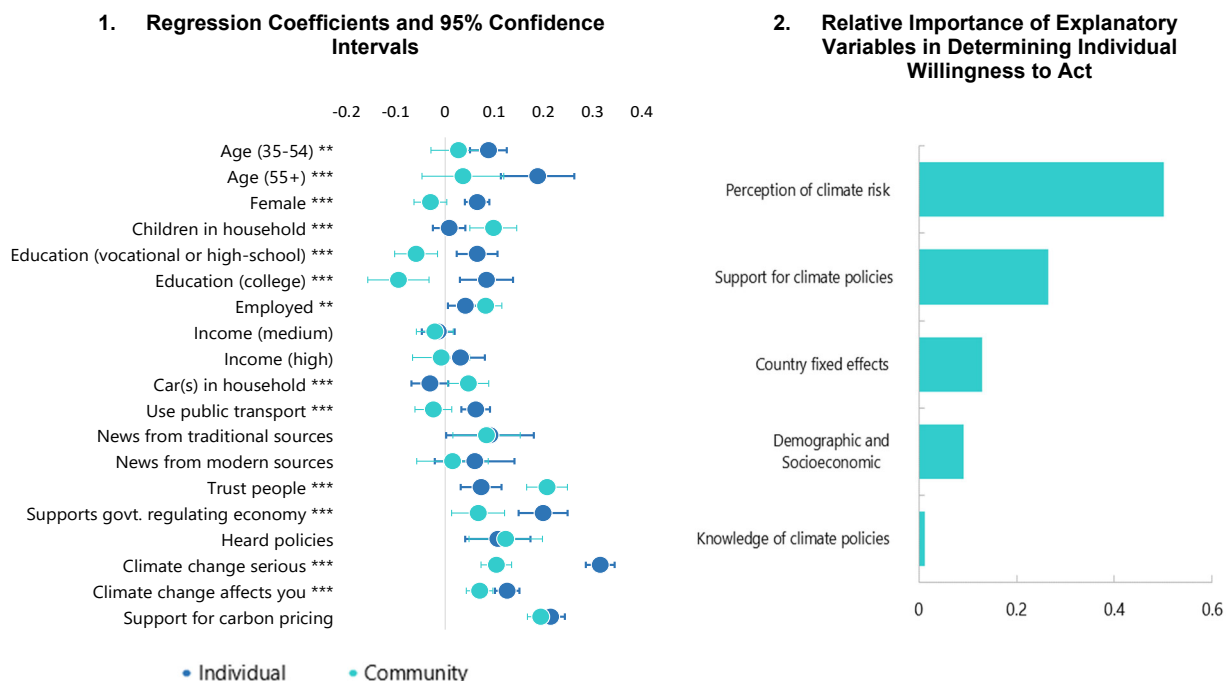
Source: IMF staff calculations based on IMF-YouGov survey.
Note: Panel 1 reports coefficients and confidence intervals from OLS regression on z-scores of the dependent variables (individual and perceived community's willingness to reduce energy consumption to tackle climate change) controlling for country fixed effects. The 95 percent confidence intervals are computed using standard errors clustered by country. Stars denote a statistically significant difference between the coefficients of a variables in the two regressions (* $p<0.1$, ** $p<0.05$, *** $p<0.01$). Panel 2 shows the results of a dominance analysis evaluating the share of variance explained by different sets of explanatory variables in the OLS regression on the drivers of personal willingness to act reported in panel 1.

Figure 19. Multilateralism and Effectiveness of Climate Policies
(Percent of responses)
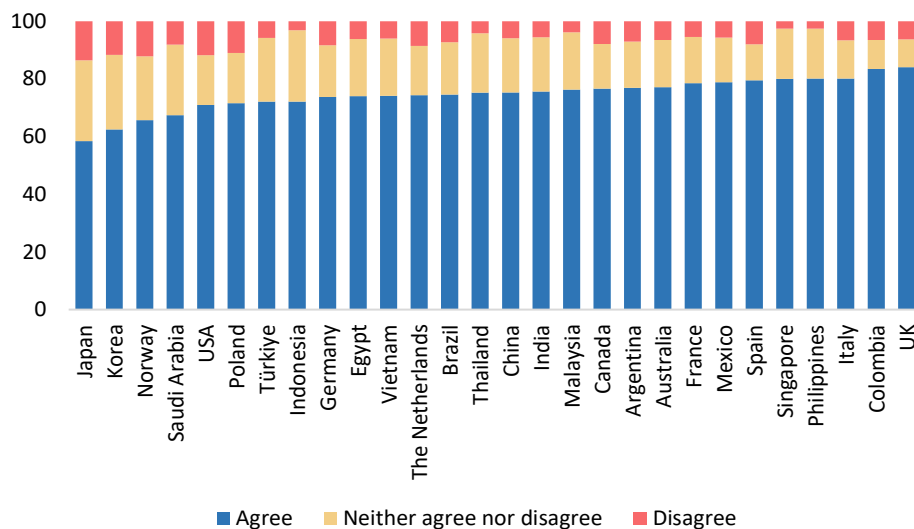
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution of responses in each country to the statement "*Climate change policy will only be effective if most countries adopt measures to reduce carbon emissions.*"

One major hurdle for international agreement on climate action is the distribution of mitigation costs across countries. Governments frequently invoke principles of distributive justice in negotiations and public debate to justify their position on burden sharing—a stance that is typically aligned with their countries' economic interest. Two broad considerations typically invoked are the "polluter pays" principle ("proportional to current emissions" and "proportional to the history of emissions") and the "ability-to-pay" principle ("only rich countries pay"). Interestingly, most respondents in both advanced and emerging market economies think that all countries, not only rich ones, should pay to address climate change (Figure 20). Further, a large share of respondents in most countries think that burden sharing should be based on current rather than historical emissions, with the difference in views being more pronounced in advanced economies.[10]

Figure 20. International Burden Sharing: Who Should Pay?
(Percent of responses)

	Australia	China	India	Indonesia	Japan	Malaysia	Philippines	Singapore	Korea	Thailand	Vietnam	Argentina	Brazil	Canada	Colombia	Mexico	USA	Egypt	Saudi Arabia	France	Germany	Italy	The Netherlands	Norway	Poland	Spain	Türkiye	UK
Asia Pacific / Americas / Middle East / Europe																												
Only rich countries	16	21	28	16	19	25	22	14	16	23	23	24	23	16	21	23	14	28	28	27	13	14	13	19	21	24	27	14
All countries	69	68	59	73	48	66	69	73	74	61	70	57	65	65	68	71	63	51	51	58	69	73	70	57	56	64	55	70
Don't know	15	12	12	11	33	8	8	13	10	16	7	20	12	19	10	6	23	22	22	15	18	13	18	24	24	12	18	16
Current emissions	51	40	50	47	35	50	48	50	47	47	52	41	43	50	48	54	44	37	36	49	48	49	53	45	55	48	41	51
Past emissions	28	44	35	35	26	38	41	32	38	35	37	33	41	27	37	38	26	35	37	35	20	31	16	18	16	33	37	26
Don't know	22	16	15	18	38	12	11	18	15	18	10	26	16	23	16	8	30	28	26	16	32	19	31	36	29	19	22	23

Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the share of responses (in percentage points) to the questions "*Which countries do you think should be paying to reduce carbon emissions?*" (top panel) and "*Should countries be paying to reduce carbon emissions based on their current or accumulated historic levels of emissions?*" (bottom panel).

Conclusion

Achieving net zero emissions globally will demand swift and decisive action by policymakers, and this requires public buy-in. This paper uses large-scale public perceptions surveys across 28 emerging market and advanced economies to examines how individuals view different climate mitigation policies and what drives their support.

We find there is significant heterogeneity on climate risk perceptions and preferences for policies across individuals and countries. Respondents in emerging market economies (in general, countries more

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[10] This result is similar to a study by Schleich et al. (2016) that examines citizens' perceptions of distributive justice using surveys from China, Germany, and the United States.

vulnerable to climate change) tend to see it as a bigger problem and are more supportive of policies to mitigate it. Concerns about climate change are also higher among women and correlated with educational attainment support for a role for government intervention in the economy.

Our surveys find that lack of support for carbon pricing is driven by concerns about rising energy prices and the perception that such policies are ineffective at reducing climate change. Another major concern is their perceived regressiveness (disproportionate impact on low-income households). This suggests that carbon pricing policies can be made more acceptable to the population when they are implemented in a "fairer" way, with plans to recycle revenues towards citizens' main concerns. The most appropriate use of the revenues, however, is contextual, as preferences for revenue-recycling vary both across and within countries. We also find that policy co-benefits resonate with the public.

Next, we test whether providing more information about the effectiveness of carbon pricing policies, as well as their costs, can change support. Compared to the control group (which received no extra information), individuals that are given a short text describing the effectiveness of carbon pricing policies and their co-benefits increase their support by 7 percentage points. In contrast, reading a paragraph highlighting the costs of such policies decreases respondents' support by 9 percentage points. These results suggest that providing information about climate change impacts, how carbon pricing works, options for revenue recycling, and improving awareness of policy co-benefits can all be critical to shaping public views on carbon pricing.

Finally, the paper considers the "public good" aspect of climate change and examines how individuals see climate action by others. In general, we find that people who report a higher willingness to change their own behavior to mitigate climate change are also skeptical that their communities will do so as well. However, from an international point of view, we find that respondents tend to act more cooperatively. First, most people believe that climate change mitigation can only work if most countries adopt measure to do it. Second, the majority of respondents in every country in our sample find that *all* countries should bear the burden of those policies, not only the rich ones. Finally, we also find broad support for policies based on current, rather than historical, emissions.

The findings in this paper are relevant for policymakers and experts who seek the broadest public support for the adoption of climate policies. While we find a large knowledge gap about the impacts of carbon pricing policies, we also find that providing information to people can drive support for such policies. The implementation details of mitigation policies can also be crucial, particularly mechanisms to attenuate the negative impact of carbon pricing on low-income households.

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Annex A. Tables

Table A.1. List of Countries

No.	Country	Observations
Asia Pacific		
1	Australia	1,009
2	China	1,016
3	India	1,018
4	Indonesia	1,052
5	Japan	1,002
6	Malaysia	1,013
7	Philippines	1,058
8	Singapore	1,017
9	Korea	1,108
10	Thailand	1,009
11	Vietnam	964
Americas		
12	Argentina	1,055
13	Brazil	1,005
14	Canada	1,004
15	Colombia	1,043
16	Mexico	1,019
17	USA	1,017
Middle East		
18	Egypt	1,013
19	Saudi Arabia	1,013
Europe		
20	France	1,010
21	Germany	1,014
22	Italy	1,014
23	The Netherlands	1,019
24	Norway	1,017
25	Poland	1,002
26	Spain	1,007
27	Türkiye	1,017
28	UK	1,006
Total		**28,541**

Table A.2. Sample Representativeness

Country	Male (% of total population)		Employment (% 15+)		Tertiary Education (At least Bachelor's)		Age: 15-24 (%)		Age: 25-64 (%)		Age: 65+ (%)	
	Population	Sample	Population	Sample	Population	Sample	Population	Sample	Population	Sample	Population	Sample
Argentina	49.5	48.5	53.8	49.3	24.8	43.4	19.8	14.8	63.5	74.4	15.2	10.7
Australia	49.6	49.1	62.4	60.1	35.0	52.5	15.2	12.1	65.4	67.4	20.5	20.5
Brazil	49.1	48.6	50.0	48.8	16.5	29.2	19.3	15.4	68.6	79.5	12.1	5.1
Canada	49.7	49.1	60.3	47.0	25.8	42.7	14.0	10.1	63.8	63.5	21.9	26.4
China	51.1	55.9	64.8	66.3	3.6	61.3	13.9	25.1	71.2	73.1	16.2	1.9
Colombia	49.3	48.6	55.4	48.3	12.8	47.1	21.1	16.5	67.7	76.3	11.1	7.2
Egypt	50.6	63.5	37.4	47.5	6.2	70.3	25.5	36.2	67.4	63.2	7.1	0.6
France	48.3	47.5	51.1	50.6	19.7	45.1	13.4	10.2	56.5	68.9	24.3	20.9
Germany	49.3	48.6	59.2	55.2	28.4	41.7	11.8	9.1	62.7	71.1	25.8	19.8
India	51.6	51.0	42.8	67.8	12.2	75.4	24.3	21.0	66.5	76.2	9.2	2.9
Indonesia	50.4	54.9	64.7	64.4	10.5	50.3	21.6	36.8	69.3	63.0	9.1	0.2
Italy	48.7	47.5	43.7	54.7	16.5	35.4	11.2	8.2	61.8	76.4	27.2	15.4
Japan	48.6	47.8	60.2	55.7	19.9	63.4	10.5	8.1	55.1	58.3	33.4	33.6
Malaysia	51.1	42.5	61.7	65.5	12.4	73.5	21.4	28.8	69.2	69.9	9.4	1.3
Mexico	48.8	48.0	56.4	65.5	17.1	56.5	22.6	17.7	66.6	75.5	10.8	6.8
The Netherlands	49.7	49.0	64.2	60.1	34.8	37.8	14.4	10.6	61.8	68.7	23.6	20.7
Norway	50.4	49.8	62.9	58.0	29.3	46.2	14.5	10.8	63.6	69.5	21.8	19.7
Philippines	50.8	48.0	54.7	56.2	24.4	64.7	26.7	22.5	65.7	72.3	7.7	5.1
Poland	48.4	47.7	55.1	58.0	28.0	38.1	11.8	9.4	67.3	75.3	22.6	15.3
Saudi Arabia	57.8	60.2	56.1	55.0	31.1	67.8	19.6	18.9	76.9	79.1	3.5	2.0
Singapore	52.3	49.0	66.1	74.1	33.0	58.7	13.5	10.9	79.1	78.5	17.7	10.5
South Korea	49.9	49.7	60.7	66.9	28.7	67.6	12.3	10.9	68.9	71.9	18.9	17.3
Spain	49.0	48.9	49.0	53.1	23.6	56.8	12.0	8.2	65.0	80.0	23.2	11.8
Thailand	48.6	49.0	65.8	68.9	15.6	70.4	14.7	23.0	68.0	74.7	17.2	2.3
Türkiye	50.1	49.9	43.5	49.4	24.5	61.7	20.2	15.3	68.9	80.7	10.9	4.0
United Kingdom	49.4	48.4	59.7	56.3	37.3	43.4	14.0	11.1	62.9	64.3	23.0	24.6
United States	49.5	48.5	57.4	49.1	37.5	36.3	16.3	11.8	64.8	71.0	20.8	17.2
Vietnam	49.4	52.4	72.8	77.2	10.2	64.8	18.3	32.6	70.4	66.9	11.3	0.5

Table A.3. Main Regression Results

Variables	(1) Climate Change Seriousness	(2) Carbon Pricing Support	(3) Revenue Recycling Low-Income Household	(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)			

Table A.3. (continued). Main Regression Results

Variables	(1) Climate Change Seriousness	(2) Carbon Pricing Support	(3) Revenue Recycling Low-Income Household	(4) Revenue Recycling Climate Projects	(5) Revenue Recycling Social services
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	17,794	13,961	17,957	17,957	17,957
R-squared	0.124	0.452	0.040	0.050	0.034

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

Note: 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. *$p < 0.1$; **$p < 0.05$; ***$p < 0.01$.

Annex B. Additional Figures

Figure B.1. Prior Knowledge of Climate Mitigation Policies
(Percent of responses. Multiple answers possible)

	Asia Pacific	Australia	China	India	Indonesia	Japan	Malaysia	Philippines	Singapore	Korea	Thailand	Vietnam	**Americas**	Argentina	Brazil	Canada	Colombia	Mexico	USA	**Middle East**	Egypt	Saudi Arabia	**Europe**	France	Germany	Italy	The Netherlands	Norway	Poland	Spain	Türkiye	UK
Carbon tax		65	34	28	19	34	36	21	63	58	23	29		15	22	70	21	16	45		12	16		61	23	43	26	31	34	38	21	57
Cap-and-trade or emissions trading systems		45	43	26	21	20	27	27	33	40	30	31		16	34	42	22	18	40		13	17		25	25	16	21	41	44	33	24	36
Law and regulations limiting carbon emissions		70	75	61	68	63	70	70	74	71	58	71		48	63	71	64	61	69		43	50		64	64	65	72	62	63	70	57	76
Subsidizing renewable energy sources		76	71	62	55	63	70	66	70	59	67	69		56	61	70	62	64	69		68	66		65	71	74	67	63	76	75	75	79
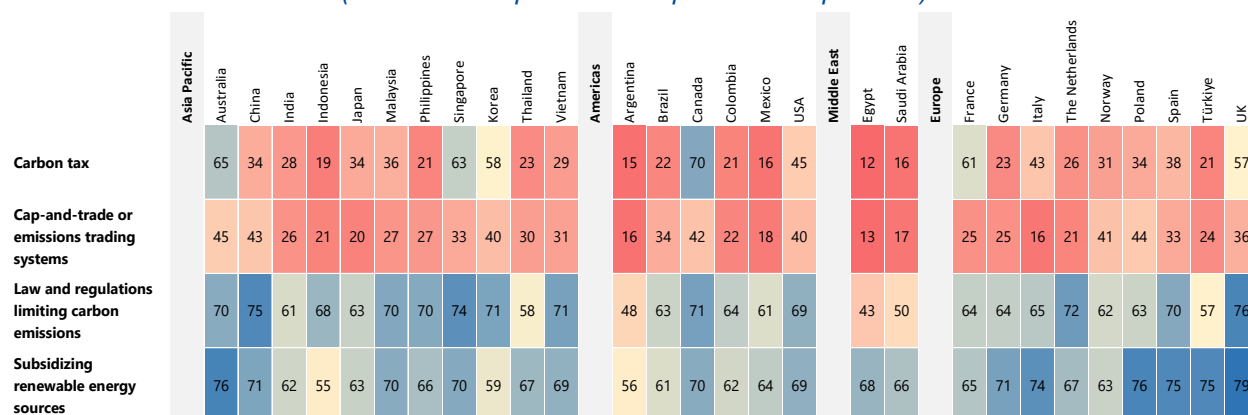
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution of responses in each country to the question "*Which, if any, of the following ways of reducing climate change have you previously heard of? Please select all that apply*". Blue denotes higher values.

Figure B.2. Support for Carbon Pricing
(Percent of responses)
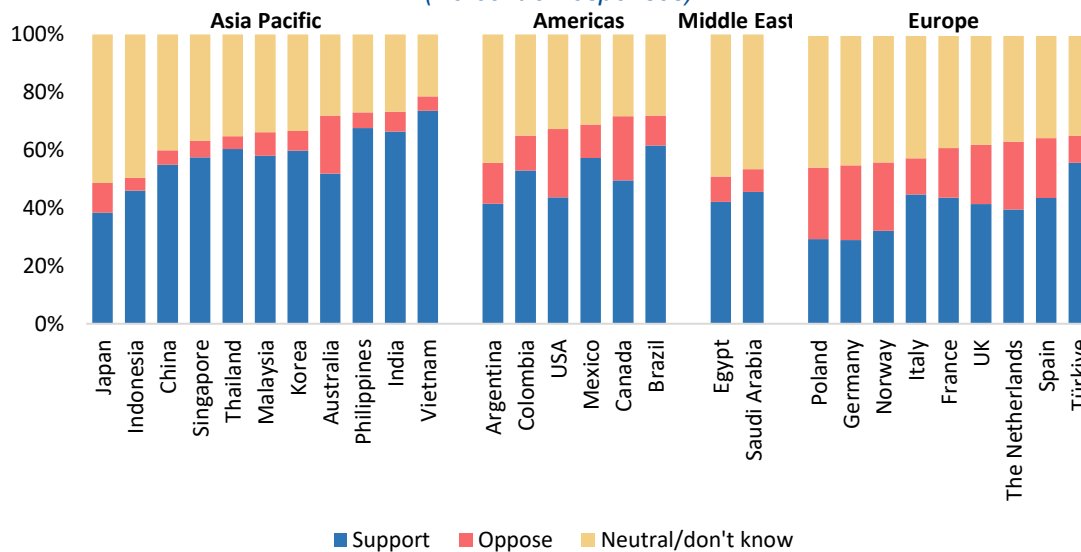
Source: IMF staff calculations based on IMF-YouGov survey.
Note: This figure shows the distribution of responses in each country to the question "*Thinking about all the impacts of a carbon pricing policy, to what extent do you support or oppose such a policy in your country?*"

Annex C. 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 Annex D). 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."

Table C.1. Words Classified into Each Topic

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 words such as "need" and "possible" (mentioned 468 and 451 times, respectively) are also not classified as they are too broad to fit any of the topics.

Annex D. Sample Questionnaire

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

Demographic Questions

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

[Additional information] *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 (with additional information)
[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 no 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