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Explaining the Willingness to Pay Higher Prices and Taxes to Combat Climate Change*

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Abstract

In this paper, we analyze the determinants of individual's willingness to pay higher prices and taxes and to reduce their standard of living to support environmental protection. Using data from the 2020 International Social Survey Programme (ISSP), Environment IV module from 26 countries on about 29,000 individuals, we investigate the influence of socio-demographic factors, consumer behavior, environmental beliefs, opinions, and attitudes. The findings reveal significant variations in willingness to bear financial burdens for environmental protection across different countries and socio-economic groups. Our analysis highlights the critical role of education, religion, political affiliation, and trust in institutions in shaping environmental attitudes and behaviors. Moreover, after controlling for individual characteristics, significant international disparities persist, with countries like India showing exceptionally high willingness across all measures, while many European countries, despite their progressive environmental policies, show lower willingness for higher taxes due to possibly already high tax burdens. These findings underscore the importance of tailoring policy communications to different socio-economic groups, emphasizing both the immediate and long-term benefits of environmental protection to enhance acceptance among various demographic segments.

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1 Introduction

The escalating crises of global warming, pollution, and environmental degradation have become pressing concerns for populations worldwide. In response, numerous nations have implemented policy measures aimed at mitigating these problems, though such efforts often encounter mixed public reactions, largely due to the economic burdens they impose. A critical moment in the global response to climate change was the adoption of the Paris Agreement in 2015.[1] The Paris Agreement's primary objective is to limit the increase in mean global temperature to well below 2 °C (3.6 °F) above pre-industrial levels, with aspirations to restrict the rise to 1.5 °C (2.7 °F), acknowledging that this would substantially mitigate the impacts of climate change. To meet this target, global greenhouse gas emissions must peak by 2025 and decrease by 43% by 2030.

Governments and organizations worldwide employ various policies and strategies to achieve these emission reduction targets. They include carbon taxation, incentives for renewable energy adoption, and regulations to enhance energy efficiency across buildings, appliances, vehicles, and industrial processes. Although these measures may initially increase costs and taxes, potentially affecting short-term living standards, public opinion surveys, such as those conducted by Eurobarometer, consistently indicate widespread support for environmental protection (European Commission, 2021).[2] However, there remains significant variation in individuals' willingness to bear these higher costs and taxes, both within and across nations.

This variability stems from a multitude of factors, including socio-economic characteristics, political affiliation, education, religious beliefs, and trust in institutions. Some factors, such as education and access to information, can be influenced by policy measures, while others are intrinsic, such as religious beliefs and cultural traditions.

This paper uses data on approximately 29,000 individuals from 26 countries from the 2020 International Social Survey Programme (ISSP), Environment IV module (hereafter referred to as ISSP EnvIV), to analyze the socio-economic drivers of individual willingness to pay higher prices and taxes for environmental protection. We focus first on variations in willingness to pay for environmental protection across different social groups, then explore cross-country differences, controlling for individual characteristics.

Our key (outcome) variables of interest come from survey questions on (A) the willingness to pay (much) higher prices to protect the environment, (B) the willingness to pay (much) higher taxes to protect the environment, and (C) the willingness to cut the standard of living to protect the environment. These three questions address the same underlying issue of willingness to support

[1] As of February 2023, 195 members of the United Nations Framework Convention on Climate Change (UNFCCC) have ratified the agreement. Notably, Iran, Libya, and Yemen have not ratified the agreement, and the United States, after initially withdrawing in 2020, rejoined in 2021.

[2] For instance, the Eurobarometer survey on climate change from 2021 found that 93% of EU citizens see climate change as a serious problem, and 90% agree that greenhouse gas emissions should be reduced to a minimum while offsetting the remaining emissions to make the EU climate-neutral by 2050.

environmental protection but from different perspectives. By analyzing these perspectives, we aim to identify whether any of these questions elicits more favorable responses from different social groups or individuals with particular socio-economic-demographic features. If so, these insights could help frame the increasing environmental costs in ways more acceptable to different target groups, potentially leading to more widely accepted policies.

Our findings reveal significant variations in willingness to bear financial burdens for environmental protection across countries and socio-economic groups, with education, political affiliation, religion, and trust in institutions emerging as critical factors. Highly educated individuals and those with left-leaning political views show consistently greater willingness, while religious beliefs and trust in institutions introduce additional layers of complexity. In particular, Orthodox Christians exhibit generally lower willingness, contrasting with higher support among some other religious groups. These findings suggest that certain demographic and attitudinal profiles align more closely with environmental protection measures.

After controlling for individual characteristics in our regressions, significant international disparities remain, with countries like India and some East Asian nations (e.g., Japan, South Korea) showing notably high willingness across all measures. In contrast, certain European countries, especially in Eastern and Southern Europe, report lower willingness to bear additional environmental costs, which may stem from existing high tax burdens and established environmental policies. These results highlight the importance of tailoring policy communications to distinct socio-economic and regional contexts and of emphasizing both immediate and long-term benefits of environmental protection to foster broader acceptance.

The remainder of the paper is organized as follows. Section 2 reviews the relevant empirical literature. Section 3 describes the survey data used in our analysis. Section 4 explains our empirical approach, and Section 5 presents our empirical findings. Finally, we discuss the results in Section 6, to conclude in Section 7.

2 Literature Review

Understanding factors that affect people's willingness to pay (WTP) higher prices or taxes to mitigate climate change is crucial for designing effective environmental policies. Numerous studies have consistently observed a positive correlation between environmental concerns and willingness to pay for environmental protection (Melis et al., 2014; Pagiaslis & Krontalis, 2014; Davidovic et al., 2020).

In environmental economics, WTP serves as a metric to gauge the monetary value individuals assign to improvements in environmental quality or reductions in pollution levels. However, it is essential to distinguish between WTP and the broader concept of support for environmental initiatives. While support encompasses a comprehensive range of attitudes and behaviors towards

environmental issues, WTP focuses explicitly on the monetary dimension of environmental preferences.

Research on eliciting WTP for lowering greenhouse gas emissions has yielded a wide range of estimates, from relatively low values of 6 €/tCO2eq to significantly higher figures of 100 €/tCO2eq (Diederich & Goeschl, 2014; Alberini et al., 2018). Methodologically, studies typically employ stated preference methods such as discrete choice experiments and contingent valuation experiments to elicit WTP. However, the hypothetical nature of these methods may introduce biases in respondents' stated preferences, potentially leading to an overestimation of actual WTP due to social desirability biases (Johansson-Stenman & Svedsater, 2012). Field experimental studies have attempted to bridge this gap, providing valuable insights into the relationship between individuals' stated WTP and their actual behavior in electricity consumption, transportation, or wine selection (Jacobsen et al., 2012; Kesternich et al., 2016; Soregaroli et al., 2021).

Studies examining WTP dynamics in different regions have revealed significant heterogeneity in consumer preferences. For example, Alberini et al. (2018) found notable variations in willingness to pay for CO2 mitigation between Italy and the Czech Republic, indicating differing WTP influenced by income levels and country-specific factors. Moreover, consumers varied in their preferences on how to deliver emissions reductions, with a majority opposing a fossil fuel tax and favoring renewable energy over energy efficiency goals. Individuals in Nordic countries show less general resistance to environmental taxation than reported in other countries (Kallbekken & Aasen, 2010).

Urban residents, being more exposed to pollution and having higher incomes, might be more willing to invest in environmental initiatives than rural residents. Zhao et al. (2019) found this to be true for China. In another study for China, Chang (2018) investigated factors influencing rural residents' willingness to pay higher prices for global warming mitigation. Although most respondents felt obligated to mitigate global warming, only a small percentage were willing to pay higher prices to address the problem. According to the authors, this unwillingness may be associated with low income, perceived inability to bear the cost, externalization of responsibility, and lack of knowledge on how to affect change.

Moreover, regional variations in temperature and personal experiences with climate events can significantly influence political behavior and support for climate policies. For instance, Cotofan, Kuralbayeva, and Matakos (2024) find that exposure to higher temperatures correlates with increased climate concerns and support for environmentally conscious agendas, particularly among older demographics. This suggests that climate experiences can drive political moderation and support for offset policies, highlighting the importance of accounting for regional and generational perspectives in climate policy design.

Framing the question posed to respondents also matters. Experimental results show differences in support based on how climate policies are presented (Feinberg & Willer, 2012; Drews & Bergh, 2015). Expressed support for 'paying an environmental tax to solve environmental problems' is

typically higher than for a specific tax, such as higher fuel taxes (OECD, 2006). This may be because people do not consider the concrete impacts or designs of environmental taxes until a specific design is presented to them, leaving no room for misunderstanding.

Additionally, consumers are generally more receptive to paying higher prices for environmentally friendly products than supporting environmental taxes (Franzen & Meyer, 2010). This preference for product-based solutions over tax-based measures may stem from the perceived direct benefit of purchasing environmentally friendly products compared to the indirect and potentially less tangible benefits of environmental taxes.

Carbon taxation has been identified as a crucial fiscal tool for addressing environmental issues. Carbon taxes incentivize energy efficiency and the substitution of fossil fuels with decarbonized energy sources by internalizing the cost of pollution. The effectiveness of carbon taxes in reducing emissions has been documented in various regions, including the EU and OECD countries, where they have been shown to significantly reduce carbon footprints while maintaining economic efficiency (Chiroleu-Assouline & Fodha, 2014; Timilsina, 2022).

However, public support for environmental taxation is not uniform and can be influenced by various factors. One central concept for understanding support for environmental tax reform is tax aversion (Bachus et al., 2019). Kallbekken et al. (2011) and Cherry et al. (2017) found that people would sometimes vote against tax reform, even when it benefits them or when they support the underlying objective. Despite recognizing the need for environmental protection, individuals may be averse to increased taxation due to concerns about economic burden, fairness, and government accountability (Beuermann & Santarius, 2006). Moreover, skepticism towards government effectiveness and concerns about revenue allocation may further undermine public support for environmental taxation initiatives (Thalmann, 2004). Kallbekken and Aasen (2010) show that providing more information, including how the revenues are spent, could provide a relatively cheap and possibly effective way to increase public support for environmental taxes.

Evidence regarding the determinants of support for environmental taxation is mixed. The effects of socioeconomic variables such as income, age, sex, number of children, and employment status are inconclusive. Bachus et al. (2019) emphasize the role of education and environmental awareness as determinants of support for environmental taxation. They find that individuals with higher levels of education are more likely to support such taxes due to their greater awareness of environmental issues and concern for climate change.

Furthermore, ownership of certain assets, such as cars, can also influence support for environmental taxation. Studies have shown that individuals who own cars may be less supportive of environmental taxes, particularly fuel-related ones, due to concerns about increased costs and perceived unfairness (Thalmann, 2004; Baranzini & Carattini, 2017).

In addition to understanding the monetary aspect of willingness to pay, it is crucial to explore the determinants and conditions that shape more general support attitudes towards environmental

protection initiatives and, in turn, impact WTP. Research has identified various factors influencing public support and willingness to pay for climate change mitigation measures.

Social and cultural factors are prominent determinants of voluntary contributions to climate protection (Carattini et al., 2019). Fehr and Fischbacher (2004) show that social norms and perceptions impact behavior as individuals want to align with societal expectations. Countries with a high propensity to conform to social norms exhibit a higher willingness to pay for climate change mitigation (Alló & Loureiro, 2014). Moreover, trust in institutions and government plays a crucial role in shaping attitudes towards environmental policies. Based on data for residential energy consumption in the United Kingdom, Volland (2017) finds a negative correlation between the level of trust stated by respondents and their reported level of energy consumption. Fairbrother (2016) and Tam and Chan (2018) found that countries with high levels of political trust tend to have smaller gaps between environmental concern and pro-environmental behavior, suggesting that trust in institutions enhances public support for environmental initiatives.

Moreover, individual attitudes and perceptions also shape the level of support. Factors such as distance to climate change consequences and perceptions of personal responsibility for mitigating climate change have been found to impact individuals' willingness to engage in low-cost mitigation actions (Heinz et al., 2023). Ayalon and Roy (2022) report that higher levels of ageism are linked to increased fears about the impact of climate change on individuals' lives and families, leading to a greater readiness to pay higher taxes to address climate change.

Religion has also been found to shape responses to climate change. Religious beliefs play a role in influencing adaptation to climate change, as they are a significant element of culture that impacts how individuals respond to climate challenges (Murphy et al., 2016; Shi et al., 2015). While some studies suggest that religious individuals may be less committed to environmental causes (e.g., Arli et al., 2022), others indicate that religious and spiritual beliefs can influence pro-environmental behavior (Ghazali et al., 2018; Francis et al., 2022). Graafland (2017) found that Christian religiosity increases positive attitudes toward socially responsible products, except for Orthodox Protestants. However, conservative Christian beliefs have been linked to lower environmental concern and behavior (Francis et al., 2022). This indicates that the specific religious orientation within the same group of religions can impact environmental attitudes. Schuman et al. (2018) conducted research in South African communities, predominantly of the Christian faith, and identified distinct groups concerning climate change adaptation. They found that religious individuals fell into two categories: religious determinists who view climate as a natural process governed by God and those who acknowledge the human impact on the climate. This study underscores the varying interpretations of climate change within religious contexts. For instance, Evangelical Protestants have been shown to exhibit more skepticism toward climate change compared to the religiously unaffiliated (Ecklund et al., 2016; Smith & Veldman, 2020). Some efforts by religious leaders, such as the Catholic Pope Francis, have emphasized the compatibility of climate action with Christian

values, potentially altering the relationship between religious identity and climate change beliefs (Drummond & Fischhoff, 2017).

While some studies have concentrated on the relationship between environmental attitudes and Christianity, it is necessary to explore how other religions, such as Buddhism, impact climate change beliefs and behaviors (Morrison et al., 2015). For example, research by Panno et al. (2017) indicates that mindfulness, a fundamental Buddhist practice, is linked to pro-environmental behavior and belief in climate change.

Political orientation significantly influences individuals' support for environmental protection initiatives. Individuals with leftist political orientations generally support environmental policies and measures more than those with rightist ideologies (Drews & van den Bergh, 2015; Davidovic et al., 2020). This support is often associated with a pro-environmental value orientation and a preference for government intervention (Davidovic et al., 2020). Individuals on the left of the political spectrum are more likely to endorse pro-environmental positions, such as being willing to pay higher taxes for environmental protection and supporting publicly financed environmental programs (Jakobsson et al., 2018). Tawiah (2022) has indicated that leftist individuals are more inclined to support environmental taxes in countries with low-quality governments. This suggests that political ideology can shape attitudes towards environmental policy, with leftists demonstrating a greater propensity towards environmental taxation.

One might think that conservatives would generally like to conserve the state of the world and, with family values in mind, would like to preserve the world for future generations. Empirically, however, this does not hold. Research finds that political conservatism is associated with lower pro-environmental attitudes (Barnett et al., 2017; Jagers et al., 2017). Right leaning voters may prioritize economic growth over traditional environmental protection (Dunlap, 1997; Melis et al., 2014; Gullberg & Aardal, 2019). Feinberg and Willer (2012) show that this discrepancy may be due to narratives, as re-framing the pro-environmental rhetoric diminished the environmental concern gap between liberals and conservatives.

Socioeconomic factors also influence individuals' support for environmental protection, but they often point in different directions. Diederich and Goeschl (2014) found that education is the most frequent and unanimously positive driver in WTP for voluntary climate action. Educational attainment worldwide is the single strongest predictor of climate change awareness (Lee et al., 2015). In contrast to their findings, income is positively correlated in most studies where available (e.g., Gelissen, 2007; Franzen & Meyer, 2010; Alberini et al., 2018). Karasmanaki (2021) reviewed determinants of WTP for renewable energy among EU citizens during 2010-2020 and found that it is mostly affected by age, sex, education level, and income status. Schleich and Alsheimer (2024) found on a German sample that WTP to offset carbon footprint is higher for younger participants, females, participants with mid-range income, with high levels of education, and with low to medium-sized carbon footprints, ceteris paribus. However, they found no evidence that partici-

pants' WTPO depends on whether they believe that their carbon footprint is lower or higher than that of others.

Understanding the determinants and conditions influencing support for environmental protection is essential for designing effective climate policies. As discussed in this literature review, social, cultural, and socioeconomic factors, along with attitudes and perceptions, collectively shape individuals' willingness to pay for environmental initiatives. This paper further contributes to this literature by studying which factors contribute to the willingness to pay higher prices and taxes and to accept a reduction in the standard of living to protect the environment.

3 Data

This study leverages data from the 2020 International Social Survey Programme (ISSP), Environment IV module (ISSP EnvIV). The ISSP is a cross-national collaboration program that conducts annual surveys on various topics relevant to social sciences.[3] The 2020 survey included a comprehensive module on environmental issues, providing rich data for analyzing the socio-economic drivers of individuals' willingness to pay higher prices and taxes to combat climate change.

The survey was administered across 28 countries worldwide, encompassing both developed and developing nations. The countries included in this module represent a diverse range of economic, cultural, and political backgrounds, allowing for robust cross-country comparisons. The participating countries are Australia, Austria, China, Croatia, Denmark, Finland, France, Germany, Hungary, Iceland, India, Italy, Japan, Republic of Korea, Lithuania, New Zealand, Norway, Philippines, Russian Federation, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Taiwan, Thailand, and the United States of America.

The survey employed a stratified random sampling technique to ensure representativeness within each country. The sample size varied by country, ranging from 993 (New Zealand) to 4,280 (Switzerland) respondents per country. Data for the ISSP EnvIV were collected between October 2019 and May 2023, with each country collecting data over a few months within this period. A full description of the original dataset is available in the GESIS repository (ISSP Research Group, 2023).

Data cleaning and transformation: To ensure the accuracy and reliability of our analyses, several steps were taken to handle and clean the data. All variables that had been coded on a counter-intuitive scale (e.g., 1 = "very willing", ..., 5 = "very unwilling") were reversed to maintain consistency.

Missing responses, coded as missing due to direct refusal or non-response, were re-coded as a separate category ("Refused") to be included in the analyses. This approach prevents a significant loss of observations and maintains the robustness of our results.

[3]ISSP data were collected following ethical guidelines and with informed consent from respondents. The ISSP ensures confidentiality and anonymity of survey participants, and the data is used solely for academic research purposes.

Furthermore, responses to questions offering both a middle answer ("neither willing nor unwilling") and an additional "can't choose" option were harmonized. In cases where "can't choose" was deemed equivalent to the middle answer, these responses were re-coded accordingly to maintain the sample size and preserve analytical integrity. For example, missing values for key willingness variables that reflected uncertainty ("can't choose") were re-coded to the middle category ("neither willing nor unwilling").

4 Empirical Approach

We employ standard binary logit models to analyze the factors influencing individuals' willingness to pay higher prices and taxes and to reduce their standard of living for environmental protection. The dependent variables are binary indicators of willingness to pay higher prices, pay higher taxes, and accept cuts in the standard of living. To ensure the robustness of our findings, we also ran ordered logit models using the categorical version of the dependent variables (on a scale of 1-5). A detailed description of the variables used in the models is provided in the Variable Codebook in the Appendix.

4.1 Outcome Variables

The survey includes a variety of questions related to environmental concerns, behaviors, and attitudes. For this study, the key variables of interest are the respondents' stated willingness to pay higher prices and taxes for environmental protection and their willingness to accept cuts in their standard of living to protect the environment. These variables are captured through the following questions:

- **(A) Prices:** "How willing would you be to pay much higher prices to protect the environment?"
- **(B) Taxes:** "How willing would you be to pay much higher taxes to protect the environment?"
- **(C) Standard:** "How willing would you be to accept cuts in your standard of living to protect the environment?"

The responses to these questions were re-coded on a five-point Likert scale, ranging from "very unwilling" to "very willing." For the logit estimation, we generated binary indicators where responses indicating willingness ("very willing" and "fairly willing") were coded as 1, and all other responses were coded as 0. As mentioned in Section 3, we also re-coded the missing "can't say"/"don't know" responses as "neither willing nor unwilling," thereby including them in the analyses as 0

in the binary indicator. As a robustness check, we also estimated models in which these missing responses were excluded, which showed consistent findings. We do not include these results in the paper due to space constraints.

For the ordered logit models, we retained the original 1–5 categorical scale, enabling us to analyze the willingness to pay in finer gradations. The ordered logit results, consistent with our binary logit outcomes, confirm the robustness of our findings and are included in the Supplemental Materials. We chose binary logit models for their ease of interpretation, focusing on whether individuals are willing to make financial sacrifices for environmental protection.

4.2 Independent Variables

To understand the factors influencing individuals' willingness to pay for environmental protection, we included a range of independent and control variables in our models. These variables were selected based on theoretical considerations and empirical evidence from prior research. The variables can be grouped into several categories: socio-demographic factors, socio-economic status, consumer behavior, trust in institutions, socio-economic attitudes, and environmental beliefs and attitudes. We progressively expand the specification of our model, where we start with socio-demographic factors only and in the final model include all the other groups of variables mentioned above. This approach shows how robust are different variables included in our analysis.

4.2.1 Socio-Demographic and Socio-Economic Factors

Initially, our analysis incorporates basic socio-demographic and socio-economic factors. These include sex, age (in terms of generation group), education (highest completed level of education), employment status, self-declared social status, religious affiliation, voting behavior, household income (grouped into quantiles relative to a given country), marital status, living location (rural or urban), and country. We also control for having (or not having) children of school age [4] in the household. This is because when children are younger than school age, there is typically a downstream learning process from parents to children. However, once children enter school, they bring new habits and behaviors into the household, which can lead to generational clashes and potentially influence parents' attitudes and behaviors. Therefore, controlling for the presence of school-age children allows us to account for these dynamics that might affect respondents' willingness to support environmental protection measures.

Including these factors provides a foundational understanding of the demographic and socio-economic landscape of the respondents. This allows us to control for basic individual characteristics that may influence willingness to support environmental protection measures.

[4] between school entry age in a given country (between 5 and 7) and 17

4.2.2 Socio-Economic Attitudes, Trust and Consumer Behavior

Next, we expand our model to include variables related to socio-economic attitudes, trust, and consumer behavior. Socio-economic attitudes variables, derived from responses to questions about private enterprise, government responsibility, import restrictions, immigration, and international organizations, capture broader social and political attitudes that may impact environmental willingness. For example, a preference for government intervention in reducing income inequality might be associated with greater support for environmental policies.

Trust variables, which include trust in people, universities, media, business, and government, are incorporated to capture the role of institutional trust in shaping environmental attitudes, behaviors, and support for environmental protection.

Consumer behavior variables such as car use, plane trips, and meat consumption are included because they reflect individual lifestyle choices that may correlate with environmental concerns and willingness to make financial sacrifices for environmental protection. These variables provide additional context on personal consumption patterns and their relation to environmental attitudes.

4.2.3 Beliefs and Opinions About Environment

In the final specification, we incorporate variables related to environmental beliefs and attitudes. These include opinions on climate change causes, on the causes of climate change, appreciation for spending time in nature, and perspectives on various environmental problems. Including these variables helps us understand whether individuals with stronger environmental beliefs are more likely to support financial sacrifices for environmental sustainability.

4.3 Sample Description

The initial dataset comprised 44,100 observations from the 28 countries participating in the ISSP EnvIV survey. After determining the relevant questions for our model, two countries were excluded from the analyses due to missing data on key variables. China (2,741 observations) was excluded because it did not administer questions regarding living location (urban-rural); the presence of children in the household, and there were many missing answers about voting in the last elections. Denmark (1,198 observations) was excluded because the Danish sample did not receive the ISSP EnvIV question about meat consumption, an omission attributed to an oversight during the translation phase, as noted by the ISSP. Moreover, for all countries, there were some missing answers in each category which were dropped. Consequently, the final sample used in this study includes data from 26 countries with a total of 29,183 observations.

Table 1 presents the percentage of respondents who indicate a willingness to pay higher prices and taxes and to decrease their living standard to protect the environment, and the sample size included in our analysis for each country.

Table 1: Descriptive Statistics of Outcome Variables

	Prices		Taxes		Standard	
	[var:	*prices_recoded]*	*[var:*	*taxes_recoded]*	*[var:*	*standard_recoded]*
Australia	50%	821	36%	821	43%	821
Austria	33%	1,126	25%	1,126	54%	1,126
Croatia	19%	916	14%	916	19%	916
Finland	32%	904	25%	904	39%	904
France	44%	1,105	22%	1,105	40%	1,105
Germany	46%	1,267	24%	1,267	57%	1,267
Hungary	23%	901	13%	901	14%	901
Iceland	46%	787	29%	787	40%	787
India	62%	895	55%	895	60%	895
Italy	32%	967	17%	967	30%	967
Japan	49%	1,089	28%	1,089	34%	1,089
Korea (South)	46%	1,149	38%	1,149	34%	1,149
Lithuania	13%	1,010	13%	1,010	12%	1,010
New Zealand	38%	767	33%	767	38%	767
Norway	48%	825	38%	825	47%	825
Philippines	27%	810	22%	810	32%	810
Russia	22%	1,320	12%	1,320	36%	1,320
Slovakia	14%	862	12%	862	17%	862
Slovenia	29%	948	18%	948	39%	948
South Africa	35%	2,238	29%	2,238	31%	2,238
Spain	20%	1,389	19%	1,389	27%	1,389
Sweden	43%	1,309	33%	1,309	47%	1,309
Switzerland	57%	3,078	30%	3,078	70%	3,078
Taiwan	45%	234	32%	234	63%	234
Thailand	24%	1,041	21%	1,041	25%	1,041
United States	44%	1,425	36%	1,425	36%	1,425
Total	37%	29,183	26%	29,183	39%	29,183

Table 2 provides an overview of the sample composition and the distribution of key variables across the surveyed countries.

The sex distribution in the sample is fairly balanced, with 47.6% male and 52.4% female respondents. In terms of age, the sample spans multiple generations, with the largest groups being Baby Boomers (31.8%) and Gen X (27.7%), followed by Millennials (24.3%) and Gen Z (9.4%). The education levels of respondents reflect their highest completed level of education, with the majority having completed secondary education (48.4%) or holding a university degree (29.0%). Employment status shows that a significant portion of the sample is currently engaged in paid work (60.4%), while 31.4% are not currently working but have worked in the past, and 8.2% have never had paid work.

We re-coded the self-declared social status variable, originally measured in 10 categories relative to each respondent's country. This grouping involved combining categories with similar character-

istics and was informed by a coefficient equality test. In general, most respondents identified with the middle categories (4, 5, and 6), with 23.5% considering themselves to be in category 5.

The variable corresponding to religious affiliation indicates a diverse sample, with the largest groups being Catholic (30.1%), Protestant (20.4%), and those with no religious affiliation (28.4%). Due to small samples, Jewish (originally category 5) and Other Asian (originally category 9) were re-coded as Other (category 10).

Voting behavior from the last election shows that 16.8% did not vote, while the remaining respondents are distributed across the political spectrum. A significant portion of respondents are in the center (17.2%), while 22.7% are jointly on the left side of the spectrum (19.3% left/center left and 3.4% far left), and 24.8% are jointly on the right side of the spectrum (21.0% right/conservative and 3.8% far right). Household income quantiles are fairly evenly distributed, though there is a slight concentration in the 1st quantile (17.9%). Marital status data reveals that the majority of respondents are married (54.9%) or never married (27.0%).

In terms of living location, a significant portion of respondents live in country villages (29.9%) and big cities (22.7%). Lastly, 75.4% of respondents do not have children of school age (between the school entry age in a given country and 17) in the household, compared to 24.6% who do.

Table 2: Sample Demographics

Variable	Obs.	Percent
N	29,183	
Male *[var: male]*		
0 female	15,287	52.4
1 male	13,896	47.6
Age Group *[var: age_gen_group]*		
Gen Z (1995/2012)	2,737	9.4
Millennials (1980/1994)	7,083	24.3
Gen X (1965/1979)	8,096	27.7
Baby Boomer (1946/1964)	9,296	31.8
SilentGen (1918/1945)	1,971	6.8
Education Level *[var: edu_groups]*		
No education	522	1.8
Primary	1,438	4.9
Secondary	14,118	48.4
Post-secondary/tertiary	4,156	14.2
University BA/MA	8,456	29.0
PhD	493	1.7
Employment Status *[var: work]*		
1. Currently in paid work	17,629	60.4
2. Currently not in paid work, paid work in the past	9,175	31.4

Table 2: Sample Demographics (continued)

Variable	Obs.	Percent
3. Never had paid work	2,379	8.2
Social Status *[var: social_status_grouped]*		
Bottom 1-3	3,312	11.4
4	3,018	10.3
5	6,855	23.5
6	5,998	20.6
7-8	7,903	27.1
Top 9-10	1,101	3.8
11. refused	996	3.4
Religion *[var: religion]*		
0. No religion	8,281	28.4
1. Catholic	8,789	30.1
2. Protestant	5,948	20.4
3. Orthodox	1,023	3.5
4. Other Christian	1,081	3.7
6. Islamic	623	2.1
7. Buddhist	1,660	5.7
8. Hindu	916	3.1
10. Other Religions	428	1.5
11. Refused	434	1.5
Voted in the Last Election *[var: LeftRightSpectrum]*		
0. Didn't vote	4,894	16.8
1. Far left (communist, etc.)	990	3.4
2. Left / center left	5,643	19.3
3. Center / liberal	5,031	17.2
4. Right / conservative	6,140	21.0
5. Far right (fascist, etc.)	1,094	3.8
6. Other or invalid ballot	1,219	4.2
7. Refused	4,172	14.3
Household Income Quantile *[var: hhINC_quant_refused]*		
1st	5,221	17.9
2nd	4,664	16.0
3rd	5,258	18.0
4th	4,561	15.6
5th	4,059	13.9
6. refused	5,420	18.6
Marital Status *[var: marital_status]*		
0. Never married	7,864	27.0
1. Married	16,036	54.9
2. Separated/divorced	2,993	10.3
3. Widowed	1,916	6.6
4. Refused	374	1.3

Table 2: Sample Demographics (continued)

Variable	Obs.	Percent
Living Location *[var: living_loc]*		
1. A farm or home in the country	1,200	4.1
2. A country village	8,738	29.9
3. A town or a small city	7,596	26.0
4. The suburbs or outskirts of a big city	5,021	17.2
5. A big city	6,628	22.7
No school-age children *[var: no_kids]*		
1. No school-age children in the hh	22,010	75.4
0. There are school-age children in the hh	7,173	24.6
Country *[var: country]*		
36. AU-Australia	821	2.8
40. AT-Austria	1,126	3.9
158. TW-Taiwan	234	0.8
191. HR-Croatia	916	3.1
246. FI-Finland	904	3.1
250. FR-France	1,105	3.8
276. DE-Germany	1,267	4.3
348. HU-Hungary	901	3.1
352. IS-Iceland	787	2.7
356. IN-India	895	3.1
380. IT-Italy	967	3.3
392. JP-Japan	1,089	3.7
410. KR-Korea (South)	1,149	3.9
440. LT-Lithuania	1,010	3.5
554. NZ-New Zealand	767	2.6
578. NO-Norway	825	2.8
608. PH-Philippines	810	2.8
643. RU-Russia	1,320	4.5
703. SK-Slovakia	862	3.0
705. SI-Slovenia	948	3.3
710. ZA-South Africa	2,238	7.7
724. ES-Spain	1,389	4.8
752. SE-Sweden	1,309	4.5
756. CH-Switzerland	3,078	10.6
764. TH-Thailand	1,041	3.6
840. US-United States	1,425	4.9

5 Empirical Results

This section presents the results of the binary logit estimations for the three dependent variables: willingness to pay higher prices, willingness to pay higher taxes, and willingness to lower one's

standard of living to protect the environment. We first discuss results regarding individual willingness to incur costs, focusing on both common influences and differences across the three framing categories (prices, taxes, and standard). Next, we analyze geographic heterogeneity, examining the notable cross-country variations in willingness to support environmental protection, which present some surprising patterns.

It is important to note that these responses reflect stated willingness and may not necessarily translate into actual behavior, which we discuss further in the conclusions. A detailed description of the variables used in the models can be found in the Variable Codebook in the Appendix.

5.1 Individual Willingness To Incur Costs

5.1.1 Common Influences

Several factors consistently influence willingness to support environmental measures across all three questions on prices, taxes, and standards of living. Table 3 presents these findings for willingness to pay higher prices, Table 4 for higher taxes, and Table 5 for lowering standard of living. Due to large size tables are displayed at the bottom of this subsection.

Higher levels of education and social status are positively associated with stated willingness across all three measures. For example, individuals with higher education, particularly those with postgraduate degrees, consistently show higher WTP, likely reflecting both increased environmental awareness and financial capacity. This pattern is most pronounced in Model I for each measure (e.g., PhD: 0.77, $p < 0.05$ in Table 3), and this this effect somewhat diminishes in later specifications, indicating that the initial association is partially explained by socio-economic attitudes and environmental attitudes. Similarly, respondents in the top self-reported social status categories exhibit higher willingness, with significant positive coefficients for all three measures.

Political orientation also plays a common role across all three measures. Individuals identifying with far-left or center-left political views are more willing to bear environmental costs (e.g., Far-left: 0.71, $p < 0.01$ in Model I for prices; 0.93, $p < 0.01$ in Model 1 for taxes). This aligns with broader ideological support for environmental policies often associated with left-leaning politics.

Socio-economic attitudes variables also exhibit consistent effects: those supportive of government responsibility in social issues, such as reducing income inequality, are more likely to express willingness across all measures. Trust in scientific institutions and the perceived direct impact of environmental problems are critical factors influencing willingness across all measures. These variables significantly increase the explanatory power of the models.

Environmental beliefs included in Model III emerge as a critical influence. Respondents who perceive environmental problems as directly impacting their lives or who prioritize environmental action, even at a personal cost, consistently exhibit higher willingness across all measures. The inclusion of environmental attitudes substantially improves model fit in each case, with pseudo

R^2 values rising from 0.11 in Model I to 0.21 in Model III for willingness to pay higher prices (and similarly for others), suggesting that these variables alone explain a substantial portion of the variance, and highlighting the significant explanatory power of environmental beliefs.

Table 3: (A) Binary logit regression: willingness to pay higher prices to protect the environment *[var: prices_recoded]*

Variable	Prices - Model I	Prices - Model II	Prices - Model II
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	−0.06	0.07*	0.12**
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	−0.14**	−0.13**	−0.10*
Gen X (1965/1979)	−0.09	−0.1	−0.08
Bby Boomer (1946/1964)	−0.03	−0.08	−0.08
SilentGen (1918/1945)	0.07	0	0.06
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	−0.32*	−0.31*	−0.34*
Secondary	−0.08	−0.12	−0.2
Post-secondary/tertiary	0.08	0	−0.14
University BA/MA	0.32	0.14	−0.01
PhD	0.77**	0.41	0.31
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not, previously yes	0.02	0	0
3. Never had paid work	0.05	0.02	0.07
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.16**	0.16**	0.15*
5	0.29***	0.25***	0.22***
6	0.43***	0.34***	0.32***
7-8	0.67***	0.55***	0.52***
Top 9-10	0.80***	0.67***	0.66***
11. refused	0.21*	0.09	0.1
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	−0.16*	−0.09	−0.06
2. Protestant	−0.12	−0.05	0
3. Orthodox	−0.49***	−0.53***	−0.45***

Table 3 – Continued

Variable	Prices - Model I	Prices - Model II	Prices - Model III
4. Other Christian	−0.06	0.06	0.1
6. Islamic	0.03	0	0.05
7. Buddhist	−0.06	−0.15**	−0.15**
8. Hindu	−0.09	−0.2	−0.22
10. Other Religions	−0.02	−0.09	−0.13
11. Refused	−0.19	−0.18	−0.15
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.71***	0.37**	0.28*
2. Left / center left	0.58***	0.29***	0.18*
3. Center / liberal	0.58***	0.37***	0.33***
4. Right / conservative	−0.02	0.02	0.06
5. Far right (fascist, etc.)	−0.29	−0.16	−0.11
6. Other or invalid balot	0.26	0.12	0.06
7. Refused	0.11	0.05	0.02
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	0.01	0.03	0.05
3rd	0.08	0.13	0.13
4th	0.22***	0.24***	0.24***
5th	0.45***	0.48***	0.48***
6.refused	−0.09	−0.01	0.01
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)
1 Married	−0.09	−0.08	−0.09
2 Separated/ divrcd	−0.15*	−0.11	−0.11
3 Widowed	−0.13	−0.13	−0.12
4 Refused	0.03	0.12	0.2
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	−0.1	−0.09	−0.1
3 A town or a small city	−0.09	−0.1	−0.11
4 Suburbs or outskirts	−0.08	−0.08	−0.07
5 A big city	0.04	0.01	0.01
No school-age children *[var: no_kids]*	0.05	0.04	0.06
Social orientation *[var: q2a - q2e]*			

Table 3 – Continued

Variable	Prices - Model I	Prices - Model II	Prices - Model III
a: Private enterprise best solves [country's] econ. problems		−0.03	−0.05*
b: It is the govt's role to reduce income inequality		−0.10***	−0.03
c: [Country] should limit importing foreign products to protect econ.		−0.09**	−0.07*
d: [Country] should limit immigration to protect our way of life		0.14***	0.10***
e: International org. in [country] have too much power		0.07	0.05
Trust			
q4_trust_people		0.08***	0.08***
q5a_trust_uni		0.07***	0.04***
q5b_trust_media		0.03**	0.02*
q5c_trust_business		−0.04**	−0.02*
q5d_trust_gov		0.04**	0.04**
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		0.11*	0.13**
2. +5 trips		0.08	0.15**
Car use (in a week)) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		−0.06	−0.06
2. +8h		−0.16*	−0.15*
Doesn't eat meat *[var: no_meat]*		−0.09	−0.02
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.51***	0.30***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural process			−0.34***
3. Equally due to natural and human			−0.39***
4. Mostly due to human activity			−0.17*
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			0.09*
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			0.05
b: We worry too much about future env. and too little about prices and jobs			−0.17***
c: Almost everything we do in modern life harms the env.			0.12***
d: People worry too much about human progress harming the env.			−0.01
e: To protect the env. [country] needs economic growth			0.02
f: Economic growth always harms the environment			0.05*
Environmental attitudes *[var: q12a - q12g]*			
a: It is too difficult for someone like me to do much about the env.			−0.02
b: I do what is right for the env., even if it costs more money or time			0.52***

Table 3 – Continued

Variable	Prices - Model I	Prices - Model II	Prices - Model III
c: There are more important things to do than protect the env.			−0.02
d: No point in doing what I can for the env. unless others do the same			−0.07***
e: Many of the claims about env. threats are exaggerated			−0.15***
f: I don't know whether the way I live is helpful or harmful			0.07***
g: Env. problems have a direct effect on my everyday life			0.14***
Country dummies included	YES	YES	YES
_cons	−0.69*	−2.50***	−4.11***
Standard errors were clustered by country			
Pseudo R2	0.11	0.15	0.21
N	29160	29160	29160

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p<0.1, ** p<0.05, *** p<0.01.

Table 4: (B) Binary logit regression: willingness to pay higher taxes to protect the environment *[var: taxes_recoded]*

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	0.02	0.17***	0.20***
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	−0.20**	−0.19**	−0.16*
Gen X (1965/1979)	−0.24**	−0.26***	−0.24**
Bby Boomer (1946/1964)	−0.19*	−0.23**	−0.24**
SilentGen (1918/1945)	−0.09	−0.16	−0.11
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	−0.44*	−0.43*	−0.46*
Secondary	−0.3	−0.32	−0.38
Post-secondary/tertiary	−0.08	−0.16	−0.28
University BA/MA	0.17	−0.02	−0.15
PhD	0.72**	0.35	0.27
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not, but previously yes	−0.01	−0.03	−0.04

Table 4 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
3. Never had paid work	0.08	0.04	0.08
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.08	0.07	0.05
5	0.24^{***}	0.19^{**}	0.17^{*}
6	0.37^{***}	0.27^{***}	0.25^{***}
7-8	0.62^{***}	0.48^{***}	0.46^{***}
Top 9-10	0.74^{***}	0.58^{***}	0.57^{***}
11. refused	0.24^{*}	0.12	0.14
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	-0.21^{***}	-0.11^{*}	−0.06
2. Protestant	−0.15	−0.06	−0.01
3. Orthodox	-0.52^{***}	-0.54^{***}	-0.46^{***}
4. Other Christian	-0.42^{**}	-0.31^{*}	-0.29^{**}
6. Islamic	−0.2	−0.2	−0.17
7. Buddhist	0.06	−0.04	−0.03
8. Hindu	−0.59	-0.73^{***}	-0.76^{**}
10. Other Religions	0.08	0.01	−0.03
11. Refused	−0.15	−0.16	−0.14
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.93^{***}	0.51^{***}	0.42^{**}
2. Left / center left	0.75^{***}	0.40^{***}	0.30^{***}
3. Center / liberal	0.52^{***}	0.29^{***}	0.24^{***}
4. Right / conservative	−0.21	−0.12	−0.09
5. Far right (fascist, etc.)	−0.4	−0.22	−0.2
6. Other or invalid balot	0.34	0.21	0.15
7. Refused	0.04	−0.04	−0.06
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	−0.04	−0.02	0
3rd	0.04	0.09	0.09
4th	0.15^{*}	0.17^{*}	0.17^{*}
5th	0.27^{***}	0.31^{***}	0.30^{***}
6.refused	-0.17^{**}	−0.06	−0.03
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)

Table 4 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
1 Married	−0.05	−0.03	−0.02
2 Separated/ divrcd	−0.12	−0.06	−0.04
3 Widowed	−0.14	−0.1	−0.08
4 Refused	−0.15	−0.06	0.03
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	−0.07	−0.06	−0.07
3 A town or a small city	0.02	0	0
4 Suburbs or outskirts	−0.01	−0.02	0
5 A big city	0.12	0.06	0.06
No school-age children *[var: no_kids]*	0.01	0	0.03
Social orientation *[var: q2a - q2e]*			
a: Private enterprise best solves [country's] econ. problems		0.06*	0.05*
b: It is the govt's role to reduce income inequality		−0.18***	−0.11***
c: [Country] should limit importing foreign products to protect econ.		−0.05*	−0.03
d: [Country] should limit immigration to protect our way of life		0.18***	0.14***
e: International org. in [country] have too much power		0.06*	0.05*
Trust			
q4_trust_people		0.12***	0.11***
q5a_trust_uni		0.07***	0.04**
q5b_trust_media		0.04***	0.03***
q5c_trust_business		−0.04	−0.02
q5d_trust_gov		0.06**	0.06***
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		0.07	0.08
2. +5 trips		−0.01	0.05
Car use (in a week) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		−0.08	−0.07
2. +8h		−0.14	−0.12*
Doesn't eat meat *[var: no_meat]*		−0.1	−0.03
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.48***	0.28***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural process			−0.36***

Table 4 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
3. Equally due to natural and human			-0.54^{***}
4. Mostly due to human activity			-0.32^{***}
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			0.06
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			0.04
b: We worry too much about future env. and too little about prices and jobs			-0.19^{***}
c: Almost everything we do in modern life harms the env.			0.12^{***}
d: People worry too much about human progress harming the env.			-0.01
e: To protect the env. [country] needs economic growth			0.02
f: Economic growth always harms the environment			0.08^{***}
Environmental attitudes *[var: q12a - q12g]*			
a: It is too difficult for someone like me to do much about the env.			0
b: I do what is right for the env., even if it costs more money or time			0.47^{***}
c: There are more important things to do than protect the env.			-0.01
d: No point in doing what I can for the env. unless others do the same			-0.06^{*}
e: Many of the claims about env. threats are exaggerated			-0.14^{***}
f: I don't know whether the way I live is helpful or harmful			0.08^{***}
g: Env. problems have a direct effect on my everyday life			0.17^{***}
Country dummies included	YES	YES	YES
_cons	-0.92^{*}	-3.14^{***}	-4.74^{***}
Standard errors were clustered by country			
Pseudo R2	0.1	0.15	0.2
N	29036	29036	29036

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p< 0.1, ** p< 0.05, *** p< 0.01.

Table 5: (C) Binary logit regression: willingness to cut own standard of living to protect the environment *[var: standard_recoded]*

Variable	Stand.- Model I	Stand.- Model II	Stand.- Model III
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	-0.14^{***}	0	0.06
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	-0.08	-0.08	-0.06

Table 5 – Continued

Variable	Stand.- Model I	Stand.- Model II	Stand.- Model III
Gen X (1965/1979)	−0.11	−0.13	−0.14
Bby Boomer (1946/1964)	−0.14	−0.20*	−0.23**
SilentGen (1918/1945)	−0.15	−0.24*	−0.21
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	−0.29	−0.29*	−0.31
Secondary	−0.16	−0.21	−0.29*
Post-secondary/tertiary	−0.05	−0.17	−0.32
University BA/MA	0.16	−0.03	−0.20
PhD	0.47**	0.10	−0.02
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not, but previously yes	−0.05	−0.07	−0.06
3. Never had paid work	0.09	0.07	0.13*
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.07	0.08	0.05
5	0.19**	0.16*	0.13
6	0.29***	0.23**	0.18**
7-8	0.35***	0.26**	0.20*
Top 9-10	0.37*	0.26	0.25
11. refused	0.23**	0.15	0.17
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	−0.10	−0.01	0.03
2. Protestant	−0.05	0.03	0.09
3. Orthodox	−0.35***	−0.39***	−0.30***
4. Other Christian	−0.09	0.02	0.07
6. Islamic	0.04	0.01	0.10
7. Buddhist	0	−0.09	−0.07
8. Hindu	−0.23	−0.35**	−0.35*
10. Other Religions	0.16	0.09	0.07
11. Refused	−0.23	−0.22	−0.20
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.80***	0.44***	0.35**
2. Left / center left	0.56***	0.27***	0.17***
3. Center / liberal	0.40***	0.20***	0.16**

Table 5 – Continued

Variable	Stand.- Model I	Stand.- Model II	Stand.- Model III
4. Right / conservative	−0.17	−0.11	−0.07
5. Far right (fascist, etc.)	−0.37**	−0.23**	−0.19**
6. Other or invalid balot	0.42*	0.28	0.22
7. Refused	−0.01	−0.09	−0.12
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	−0.05	−0.04	−0.03
3rd	0.08	0.13*	0.12*
4th	0.10	0.12	0.10
5th	0.14	0.17*	0.15
6.refused	−0.17	−0.09	−0.09
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)
1 Married	−0.02	−0.01	0
2 Separated/ divrcd	0	0.04	0.05
3 Widowed	−0.05	−0.04	−0.01
4 Refused	−0.01	0.07	0.17
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	−0.09	−0.07	−0.06
3 A town or a small city	−0.17	−0.17	−0.17*
4 Suburbs or outskirts	−0.16	−0.14	−0.11
5 A big city	−0.17	−0.18	−0.18
No school-age children *[var: no_kids]*	−0.07*	−0.09*	−0.07
Social orientation *[var: q2a - q2e]*			
a: Private enterprise best solves [country's] econ. problems		0.01	−0.03
b: It is the govt's role to reduce income inequality		−0.15***	−0.08***
c: [Country] should limit importing foreign products to protect econ.		−0.09***	−0.06**
d: [Country] should limit immigration to protect our way of life		0.14***	0.09***
e: International org. in [country] have too much power		0.04	0.02
Trust			
q4_trust_people		0.10***	0.09***
q5a_trust_uni		0.07***	0.05***
q5b_trust_media		0.01	0
q5c_trust_business		−0.05**	−0.02
q5d_trust_gov		0.02	0.02

Table 5 – Continued

Variable	Stand.- Model I	Stand.- Model II	Stand.- Model III
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		−0.02	−0.01
2. +5 trips		0.02	0.10
Car use (in a week) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		0.03	0.03
2. +8h		−0.07	−0.05
Doesn't eat meat *[var: no_meat]*		−0.14*	−0.06
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.52***	0.31***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural process			−0.25**
3. Equally due to natural and human			−0.29*
4. Mostly due to human activity			−0.13
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			0.07**
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			−0.05
b: We worry too much about future env. and too little about prices and jobs			−0.13***
c: Almost everything we do in modern life harms the env.			0.16***
d: People worry too much about human progress harming the env.			−0.05***
e: To protect the env. [country] needs economic growth			−0.10**
f: Economic growth always harms the environment			0.07***
Country dummies included	YES	YES	YES
_cons		−0.25	−1.95***	−2.70***
Standard errors were clustered by country			
Pseudo R2		0.11	0.16	0.21
N		29138	29138	29138

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p<0.1, ** p<0.05, *** p<0.01.

5.1.2 Distinct Influences

While commonalities exist, certain factors exhibit distinct effects depending on whether the measure involves paying higher prices, taxes, or lowering living standard.

Firstly, the framing of the financial burden—whether in the form of higher prices or taxes—affects stated willingness. Respondents generally report higher willingness to pay increased prices rather than taxes, suggesting a sensitivity to direct taxation. This distinction may reflect a broader acceptance of price adjustments within markets over government-imposed taxes, where taxation is perceived as an obligatory financial burden. Such framing differences indicate that support for environmental measures may vary significantly depending on whether the cost is framed as a market price adjustment or a direct tax increase.

Secondly, while younger generations (Gen Z) consistently show higher willingness across all measures, generational divides are particularly evident for the willingness to lower living standards, with older generations significantly less willing to make personal sacrifices of this nature (e.g., Baby Boomers: -0.23, $p < 0.05$ in Model III for standards).

Religious affiliation shows unique patterns across the three measures. Orthodox Christians consistently exhibit a lower willingness to pay across all measures, with statistically significant negative coefficients for each type of cost. Other religious groups, such as Catholics and Protestants, display varying levels of willingness depending on the specific measure, with some reporting higher willingness for increased prices but lower willingness for taxes. These findings suggest that religious beliefs may shape attitudes toward environmental protection in ways that reflect both cultural values and perceptions of the type of financial commitment required.

Political orientation shows greater influence in willingness to pay higher taxes, with left-leaning individuals demonstrating a stronger preference for taxation as a means of supporting environmental goals. This may reflect an ideological alignment with government interventions in social issues, including environmental sustainability. Notably, far-left political orientations yield larger coefficients in the tax models (e.g., 0.93, $p < 0.01$ in Model I) compared to prices or living standards, indicating a preference for government-led financial solutions.

Lastly, consumer behaviors tied to environmental awareness also vary in their influence. Individuals who actively avoid products that harm the environment are more likely to express willingness to lower their standard of living (e.g., 0.52, $p < 0.01$ in Table 5), suggesting alignment between lifestyle and stated willingness. However, this behavior shows slightly less predictive power for the other two measures, underscoring that personal lifestyle choices may more directly relate to self-imposed lifestyle adjustments than to financial measures like prices or taxes.

5.1.3 Summarizing Similarities and Differences Across Individual Willingness

In summary, factors such as education, social status, and environmental attitudes consistently influence willingness to pay across all three measures, underscoring the role of socio-economic characteristics and personal beliefs in shaping public support for environmental policies. Trust in institutions and socio-economic attitudes also play common roles across measures, indicating that

institutional trust and a sense of social responsibility contribute to willingness to bear financial burdens for environmental protection. The inclusion of environmental attitudes, in particular, significantly improves model fit and explains a substantial portion of variance across all measures.

Differences in willingness across the specific framing of environmental costs—prices, taxes, and standards of living—suggest that the way financial contributions are presented impacts individuals' stated support. Respondents tend to be more willing to accept increased prices over higher taxes, which may reflect broader acceptance of market-driven costs compared to direct taxation. Willingness to lower one's standard of living is notably lower, particularly among older generations, highlighting a generational divide in attitudes toward lifestyle adjustments for environmental purposes. These framing effects indicate that policy communications could consider cost presentation to increase public acceptance, with price-based mechanisms potentially more favorable than direct taxes.

5.2 Country Coefficients

This section examines heterogeneity across countries in stated willingness to pay higher prices, higher taxes, and accept lower living standards to protect the environment, after controlling for individual-specific factors. Specifically, we present the estimates of country odds ratios from the binary logit regressions discussed in the previous section. Figures 1, 2, and 3 show odds ratios for the regressions on prices, taxes, and standard of living, respectively, where Australia is the reference category. Our analysis reveals substantial cross-country variability, highlighting that national context strongly influences attitudes toward environmental costs. Below we emphasize both general trends and unique findings across the three measures, allowing for a comparative view of country effects.

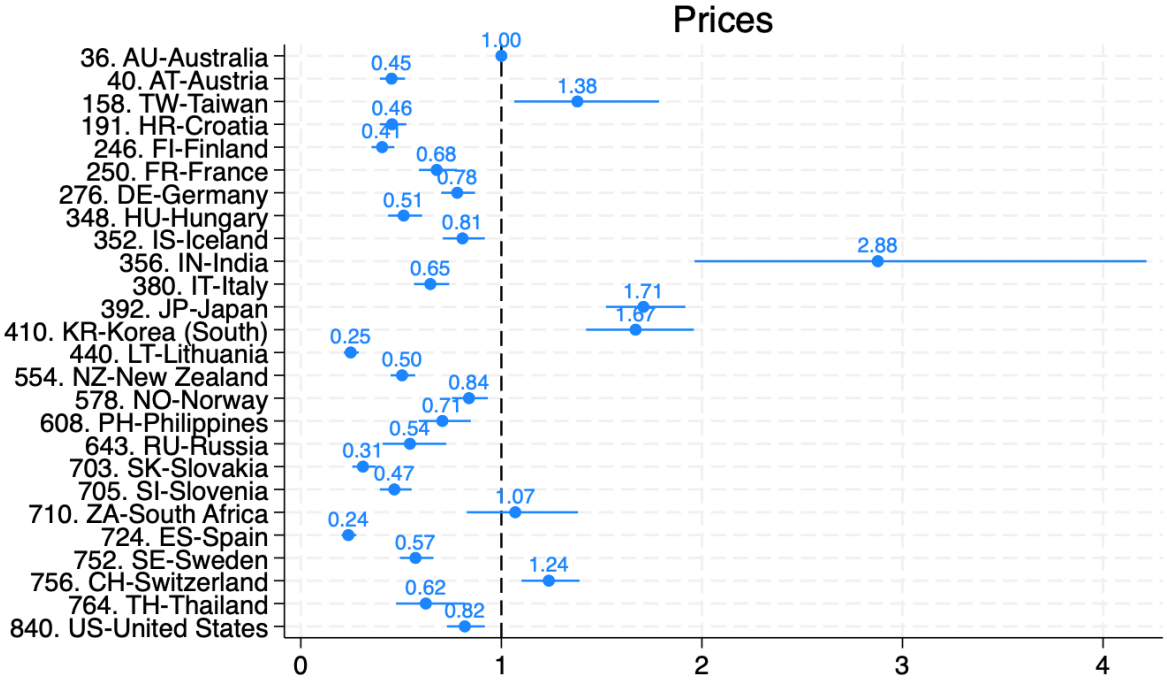

Figure 1: Odds ratios from logit for Y=prices, by country

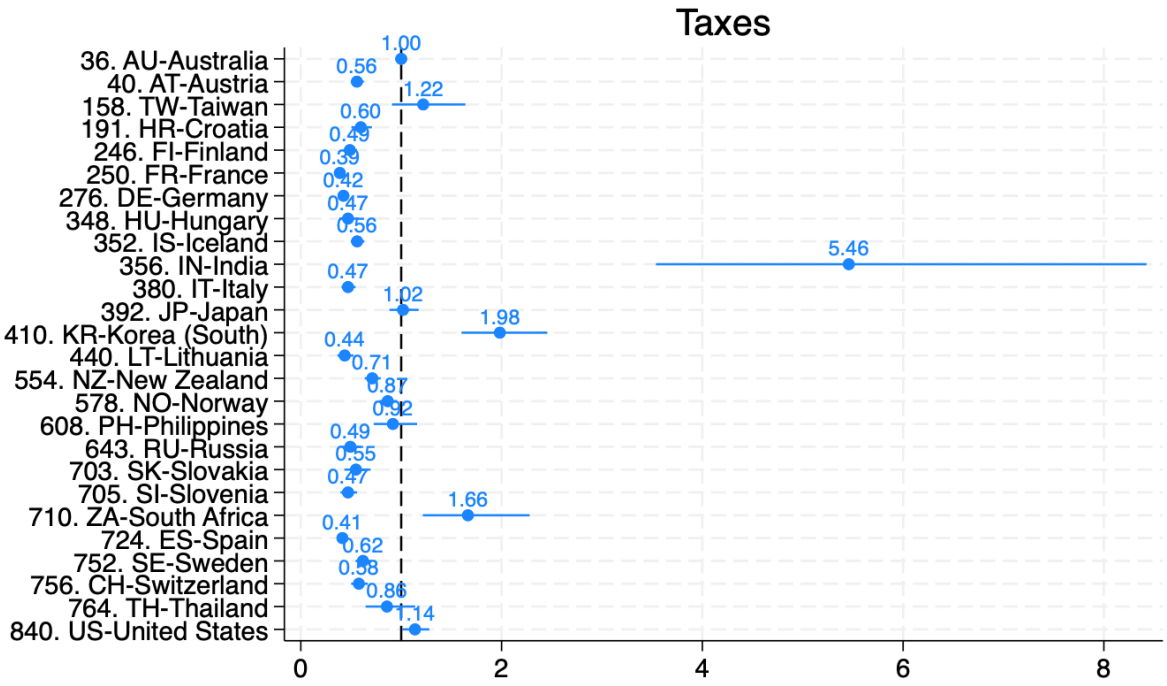

Figure 2: Odds ratios from logit for Y=taxes, by country

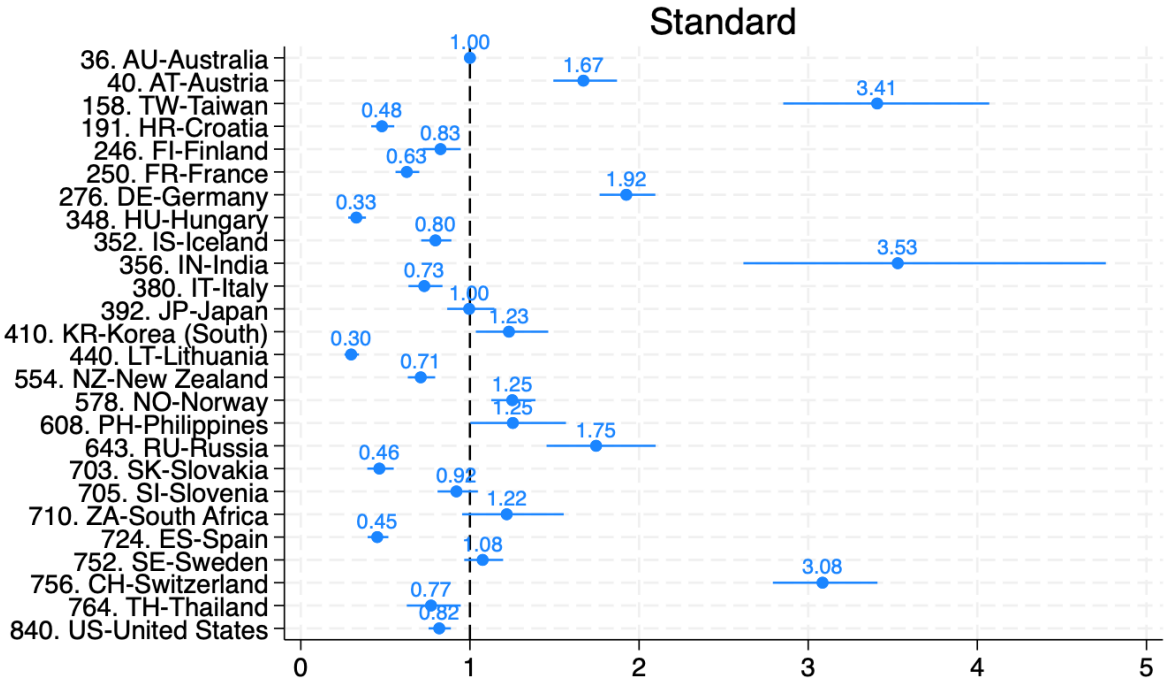

Figure 3: Odds ratios from logit for Y=standard, by country

Across all three measures—higher prices, higher taxes, and lower living standards—India stands out with consistently high odds ratios, indicating strong stated willingness to bear environmental costs (e.g., $OR = 2.88$ for prices, $OR = 5.46$ for taxes, and $OR = 3.53$ for standards, $p < 0.01$ for all), which comes as a surprise. Several factors can explain this, such as India's cultural heritage emphasizing harmony with nature and the country's substantial environmental challenges. However, the magnitude of the difference is still very surprising. Nonetheless, this suggests a high level of public concern for environmental issues that go beyond economic constraints, given the comparatively low economic status of India.

A similar pattern of relatively high willingness is observed in East Asian countries like Japan, South Korea, and Taiwan across the three measures. For example, in Japan, willingness to pay higher prices is significantly elevated ($OR = 1.71$, $p < 0.01$), as is willingness to pay higher taxes ($OR = 1.02$, $p < 0.05$), although willingness to reduce living standards is less pronounced ($OR = 1.00$, $p < 0.05$). These findings may reflect strong cultural or policy-driven factors that promote collective responsibility toward environmental sustainability.

In contrast, many European countries, particularly in Eastern and Southern Europe, demonstrate lower willingness to bear environmental costs across all three measures. For willingness to pay higher prices, countries such as Spain, Lithuania, and Slovakia show significantly reduced odds ratios. This may reflect the established environmental policies and already high associated costs in

these regions, leading to some resistance to further price increases.

A similar pattern emerges for willingness to pay higher taxes, with countries like France, Germany, and several Eastern European nations showing lower willingness. The combination of existing tax burdens and comprehensive environmental tax regimes in these countries may contribute to lower support for additional environmental taxes.

Finally, willingness to lower one's standard of living is also lower in parts of Eastern and Southern Europe, including Lithuania, Hungary, and Spain. This trend may indicate a perception that wealthier Western European nations should bear a larger share of the environmental burden, influencing lower support for personal sacrifices in these regions.

5.3 Country-Level Heterogeneity

While general trends hold across measures, some unique country-level patterns emerge for each type of financial burden.

Higher Prices vs. Higher Taxes

Respondents in many countries show greater willingness to accept higher prices than higher taxes. For instance, in Germany, willingness to pay higher prices is lower but significant ($OR = 0.78$, $p < 0.05$), while willingness to pay higher taxes is even lower ($OR = 0.42$, $p < 0.01$). This difference may highlight a broader reluctance toward taxation as a government-imposed burden, with higher prices potentially viewed as more voluntary market adjustments.

In contrast, some countries, like South Africa, display unusual patterns. Despite relatively high poverty levels, South Africans report higher willingness to pay both increased prices and taxes compared to other countries, with an odds ratio of 1.66 for taxes ($p < 0.01$). This anomaly may reflect unique regional or socio-political factors in South Africa, where environmental awareness intersects with social issues.

Willingness to Lower Standard of Living

The willingness to lower living standards shows more dispersion and different ordering across countries compared to prices and taxes. Here, Switzerland and some Nordic countries, such as Norway and Sweden, report relatively high odds ratios, with Switzerland at $OR = 3.08$ and Norway at $OR = 1.25$ ($p < 0.05$ for both). These findings align with progressive environmental policies and public support for sustainability initiatives commonly found in these regions.

Interestingly, certain countries that typically report lower willingness for increased prices and taxes, like Russia, demonstrate a greater willingness to reduce living standards ($OR = 1.75$, $p < 0.01$). This pattern could indicate a preference for individual lifestyle adjustments over financial contributions in these national contexts.

In contrast, Lithuania, Hungary, and Slovakia exhibit the lowest odds ratios for willingness to

lower living standards (e.g., $OR = 0.30$ for Lithuania, $p < 0.01$), aligning with a broader trend in Eastern Europe of lower support for additional environmental costs.

6 Discussion

This study reveals that framing matters significantly in shaping public willingness to support environmental costs. The form these costs take—higher prices, taxes, or reduced living standards—elicits different levels of public acceptance, with higher prices generally preferred over taxes and reductions in living standards. This pattern suggests that public resistance could be minimized by embedding environmental costs within market prices rather than through explicit tax policies, which are often perceived as more burdensome. This insight provides a practical direction for policymakers seeking to design environmental strategies that align with public preferences for flexibility and choice in managing personal finances.

Socio-demographic patterns also offer actionable guidance for policy design. Younger generations, exhibiting higher willingness across all measures, might respond positively to initiatives that frame environmental protection as an investment in their future, aligning with their longer-term perspective. Left-leaning political views and higher education levels correlate with greater support for environmental costs, suggesting that policy messaging emphasizing the collective benefits of environmental sustainability may resonate particularly well with these groups. Moreover, more reluctant demographic groups might be reached through highlighting the direct, localized benefits of environmental policies, such as improved public health and the economic opportunities created by green technologies.

Religious and cultural contexts further shape responses to environmental policies. For example, Orthodox Christians report lower willingness across all measures, a trend that might reflect the particular socio-economic environment in Russia, where fossil-fuel dependency and limited emphasis on environmental issues may diminish support for increased environmental costs. By contrast, varying responses among Catholics and Protestants across different measures suggest that environmental policies could benefit from faith-aligned messaging. For communities where stewardship is emphasized within religious doctrine, emphasizing themes of environmental stewardship and the duty to protect creation may bolster public support for environmental policies.

Lastly, substantial cross-country differences suggest that cultural, economic, and policy contexts exert a strong influence on public willingness to bear environmental costs. Countries like India, Japan, and South Korea demonstrate high stated willingness to pay, likely driven by a mix of acute environmental challenges, cultural values that emphasize collective action, and, in some cases, stronger public trust in government initiatives. In contrast, lower willingness in many European countries, particularly those with existing high tax burdens, points to a need for policy approaches that align more closely with economic realities and public sentiment in these regions. Designing

transparent policies that clearly distribute environmental costs and benefits fairly across income groups may improve public acceptance, particularly in these contexts.

7 Conclusion

In this paper, we analyze the determinants of willingness to pay higher prices and taxes and to reduce one's standard of living to support environmental protection. Using data from the 2020 International Social Survey Programme (ISSP), Environment IV module, covering 26 countries and about 29,000 individuals, we investigate the influence of socio-demographic factors, consumer behavior, environmental beliefs, and political and religious affiliations. Education, political orientation, and environmental attitudes emerge as consistent predictors of willingness, while religion and trust in institutions introduce additional variation, especially among certain groups like Orthodox Christians who report lower willingness across all measures. Additionally, substantial cross-country differences persist: countries like India and several East Asian nations display high willingness across all measures, while many European countries show lower willingness to bear added environmental costs, potentially due to high existing tax burdens.

Our results underscore the importance of cultural, economic, and policy contexts when designing environmental policies. The high willingness observed in countries like India, Japan, and South Korea suggests receptiveness to policies involving direct economic contributions toward environmental protection. In contrast, the lower willingness observed in many European countries, especially where tax burdens are already high, indicates a potential need for alternative strategies. These might include raising public awareness, offering incentives for environmentally friendly behaviors, and ensuring policies align with public sentiment. Targeted educational campaigns and adjustments to current policies could help address these regional differences.

An important limitation of this study is the non-experimental nature of the data. The questions were not randomized, and each respondent received all questions in the same order. Therefore, we can only infer correlations rather than causations. What we term "willingness to pay higher prices/taxes/lower living standards" refers to hypothetical statements that may not translate into actual behavior. However, previous studies have shown that hypothetical responses can still offer valuable insights. For instance, List and Gallet (2001) demonstrated that certain conditions and protocols can help align hypothetical and actual behaviors. More broadly, research indicates that individuals' stated intentions often reflect underlying preferences and can predict future actions, as supported by Blumenschein et al. (2008). Despite these limitations, our analysis lays the groundwork for future research, potentially involving randomized controlled experiments to further investigate these findings.

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A Variable Codebook

Variable	Description	Statistics
prices_recoded (*binary dependent var*)	RECODE of v26 (Q11a How willing would you be to pay much higher prices in order to protect the environment?). Very and fairly willing as 1, Very and fairly unwilling and neither willing nor unwilling as 0. Recoded: "can't choose" recoded as "neither nor" and thus counted here as 0	Obs: 29160, Unique: 2, Mean: 0.37, Min: 0, Max: 1
taxes_recoded (*binary dependent var*)	RECODE of v27 (Q11b How willing would you be to pay much higher taxes in order to protect the environment?). Very and fairly willing as 1, Very and fairly unwilling and neither willing nor unwilling as 0. Recoded: "can't choose" recoded as "neither nor" and thus counted here as 0	Obs: 29036, Unique: 2, Mean: 0.26, Min: 0, Max: 1
standard_recoded (*binary dependent var*)	RECODE of v28 (Q11c How willing would you be to accept cuts in your standard of living in order to protect the environment?). Very and fairly willing as 1, Very and fairly unwilling and neither willing nor unwilling as 0. Recoded: "can't choose" recoded as "neither nor" and thus counted here as 0	Obs: 29138, Unique: 2, Mean: 0.39, Min: 0, Max: 1
prices_cat_recoded (*categorical dependent var*)	RECODE of v26 (Q11a How willing would you be to pay much higher prices in order to protect the environment?), maintaining the original 5-point scale: 1 = Very unwilling, 2 = Fairly unwilling, 3 = Neither nor, 4 = Fairly willing, 5 = Very willing, but ".c (can't choose)" recoded as 3 "Neither nor"	Obs: 29,160, Unique: 5, Mean: 2.91, Std. dev.: 1.18, Min: 1, Max: 5

Table 6 – Continued

Variable	Description	Statistics
taxes_cat_recoded (*categorical dependent var*)	RECODE of v27 (Q11b How willing would you be to pay much higher taxes in order to protect the environment?), maintaining the original 5-point scale: 1 = Very unwilling, 2 = Fairly unwilling, 3 = Neither nor, 4 = Fairly willing, 5 = Very willing, but ".c (can't choose)" recoded as 3 "Neither nor"	Obs: 29,036, Unique: 5, Mean: 2.56, Std. dev.: 1.2, Min: 1, Max: 5
standard_cat_recoded (*categorical dependent var*)	RECODE of v28 (Q11c How willing would you be to accept cuts in your standard of living in order to protect the environment?), maintaining the original 5-point scale: 1 = Very unwilling, 2 = Fairly unwilling, 3 = Neither nor, 4 = Fairly willing, 5 = Very willing, but ".c (can't choose)" recoded as 3 "Neither nor"	Obs: 29,138, Unique: 5, Mean: 2.95, Std. dev.: 1.19, Min: 1, Max: 5
male	RECODE of SEX (Sex of Respondent)	Obs: 29183, Unique: 2, Mean: 0.48, Min: 0, Max: 1
age_gen_group	RECODE of BIRTH (Year of birth)	Obs: 29183, Unique: 5, Mean: 3.02, Min: 1, Max: 5
edu_groups	RECODE of education (ISCED 2011 simplified: highest completed degree of education). Recoded: (0) No education, (1) Primary, (2) Secondary, (3) Post-secondary/tertiary, (4) University BA/MA, (5) PhD	Obs: 29183, Unique: 6, Mean: 2.69, Min: 0, Max: 5
country	Country ISO 3166 Code	Obs: 29183, Unique: 26
work	Currently, formerly, or never in paid work	Obs: 29183, Unique: 3, Mean: 1.48, Min: 1, Max: 3
social_status_grouped	RECODE of social_status (Top-Bottom self-placement). Grouped based on similar coefficients: (1) Bottom 1-3, (2) 4., (3) 5., (4) 6., (5) 7-8, (6) Top 9-10, (7) 11. refused	Obs: 29183, Unique: 7, Mean: 3.67, Min: 1, Max: 7
religion	Comparative: groups of religious affiliations (derived from nat_RELIG). Recoded: (10) Other, (11) Refused	Obs: 29183, Unique: 10, Mean: 2.05, Min: 0, Max: 11

Table 6 – Continued

Variable	Description	Statistics
LeftRightSpectrum	Voted for in last general election: left-right scale. Generated: (0) Didn't vote, (1) Far left, (2) Left, (3) Center, (4) Right, (5) Far right, (6) Other, (7) Refused	Obs: 29183, Unique: 8, Mean: 3.22, Min: 0, Max: 7
hhINC_quant_refused	Household income quantile group own country based, including refused. Generated: category 6 for refused	Obs: 29183, Unique: 6, Mean: 3.47, Min: 1, Max: 6
marital_status	RECODE of MARITAL (Legal partnership status). Recoded: (0) Never married, (1) Married, (2) Separated/ divorced, (3) Widowed, (4) Refused	Obs: 29183, Unique: 5, Mean: 1.00, Min: 0, Max: 4
living_loc	RECODE of URBRURAL (Place of living: urban - rural). Recoded: (1) A farm or home in the country, (2) A country village, (3) A town or a small city, (4) The suburbs or outskirts of a big city, (5) A big city	Obs: 29183, Unique: 5, Mean: 3.24, Min: 1, Max: 5
no_kids	No children of school age in the household. Generated: 1 if HHCHILDR==0. Missing for China.	Obs: 29183, Unique: 2, Mean: 0.75, Min: 0, Max: 1
q2a_private_better_recoded	Q2a Solve economic problems: private enterprise. Recoded: .c as 3 'neither agree nor disagree'	Obs: 29183, Unique: 5, Mean: 2.80, Min: 1, Max: 5
q2b_redistribution_recoded	Q2b Responsibility of government: reduce income differences. Recoded: .c as 3 'neither agree nor disagree'	Obs: 29183, Unique: 5, Mean: 2.29, Min: 1, Max: 5
q2c_limit_import_recoded	Q2c [COUNTRY] should limit import of foreign products to protect national economy. Recoded: .c as 3 'neither agree nor disagree'	Obs: 29183, Unique: 5, Mean: 2.65, Min: 1, Max: 5
q2d_limit_immigration _recoded	Q2d [COUNTRY] should limit immigration to protect national way of life. Recoded: .c as 3 'neither agree nor disagree'	Obs: 29183, Unique: 5, Mean: 2.73, Min: 1, Max: 5
q2e_org_power_recoded	Q2e International organizations are taking away too much power from the government. Recoded: .c as 3 'neither agree nor disagree'	Obs: 29183, Unique: 5, Mean: 2.76, Min: 1, Max: 5

Table 6 – Continued

Variable	Description	Statistics
q4_trust_people	Q4 Amount of trust in most people	Obs: 29183, Unique: 5, Mean: 2.93, Min: 1, Max: 5
q5a_trust_uni	Q5a Trust in institutions: University research centres	Obs: 29183, Unique: 11, Mean: 6.63, Min: 0, Max: 10
q5b_trust_media	Q5b Trust in institutions: The news media	Obs: 29183, Unique: 11, Mean: 4.73, Min: 0, Max: 10
q5c_trust_business	Q5c Trust in institutions: Business and industry	Obs: 29183, Unique: 11, Mean: 5.22, Min: 0, Max: 10
q5d_trust_gov	Q5d Trust in institutions: The [COUNTRY NATIONALITY PARLIAMENT]	Obs: 29183, Unique: 11, Mean: 4.58, Min: 0, Max: 10
plane_trips_cat	RECODE of q17a_plane_use (Q17a Last 12 months: number of trips by plane?)	Obs: 29183, Unique: 3, Mean: 0.36, Min: 0, Max: 2
car_use_cat	RECODE of q17b_car_use (Q17b Typical week: number of hours spend in car/ another)	Obs: 29183, Unique: 3, Mean: 1.10, Min: 0, Max: 2
no_meat	Generated: 1 if q17c_meat_cons==0 or if vegetarian in India. Missing for Denmark	Obs: 29183, Unique: 2, Mean: 0.80, Min: 0, Max: 1
q19b_avoid_buyig	RECODE of v53 (Q19b How often avoid buying certain products for environmental reasons?)	Obs: 29183, Unique: 4, Mean: 2.46, Min: 1, Max: 4
q8_clim_change_reasons	Q8 Opinion on climate change and potential causes?	Obs: 29183, Unique: 4, Mean: 2.89, Min: 1, Max: 4
q15_enjoy_being_in_nature	Q15 Extent of pleasure being outside in nature?	Obs: 29183, Unique: 5, Mean: 3.59, Min: 1, Max: 5
q10a_science_solve_recoded	RECODE of v20 (Q10a Science will solve environmental problems). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.85, Min: 1, Max: 5
q10b_pragmatism_recoded	RECODE of v21 (Q10b Worry too much about environment and not enough about prices). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.00, Min: 1, Max: 5
q10c_all_harm_recoded	RECODE of v22 (Q10c Modern life harms the environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.29, Min: 1, Max: 5

Table 6 – Continued

Variable	Description	Statistics
q10d_overconcern_recoded	RECODE of v23 (Q10d Worry too much about progress harming environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.65, Min: 1, Max: 5
q10e_growth_needed _recoded	RECODE of v24 (Q10e [COUNTRY] needs economic growth to protect environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.89, Min: 1, Max: 5
q10f_growth_bad_recoded	RECODE of v25 (Q10f Economic growth harms environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.21, Min: 1, Max: 5
q12a_helpless_recoded	RECODE of v30 (Q12a Too difficult to do much about environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.79, Min: 1, Max: 5
q12b_committed_recoded	RECODE of v31 (Q12b I do what is right, even when it costs more money and time). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.51, Min: 1, Max: 5
q12c_other_prio_recoded	RECODE of v32 (Q12c There are more important things than protect environment). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.55, Min: 1, Max: 5
q12d_group_respons _recoded	RECODE of v33 (Q12d No point unless others do the same). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.10, Min: 1, Max: 5
q12e_threats_exagg _recoded	RECODE of v34 (Q12e Many claims about environment exaggerated). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.85, Min: 1, Max: 5
q12f_uncertain_recoded	RECODE of v35 (Q12f Hard to know whether the way I live is helpful or harmful to). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 2.76, Min: 1, Max: 5
q12g_direct_impact _recoded	RECODE of v36 (Q12g Environmental problems have direct effect on everyday life). Recoded: .c as 3 'neither nor'	Obs: 29183, Unique: 5, Mean: 3.30, Min: 1, Max: 5

Supplemental Materials

Table 7: (A) Ordered logit regression: willingness to pay higher prices to protect the environment *[var: prices_cat_recoded]*

Variable	Prices - Model I	Prices - Model II	Prices - Model III
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	-0.10^{***}	0.02	0.07^{*}
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	-0.17^{**}	-0.16^{**}	-0.12^{*}
Gen X (1965/1979)	−0.09	-0.11^{*}	−0.08
Bby Boomer (1946/1964)	−0.04	−0.08	−0.08
SilentGen (1918/1945)	0.05	−0.03	0
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	-0.28^{*}	-0.29^{**}	-0.34^{**}
Secondary	−0.15	−0.20	−0.29
Post-secondary/tertiary	−0.01	−0.11	−0.24
University BA/MA	0.19	−0.02	−0.16
PhD	0.69^{***}	0.28	0.19
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not in paid work	0.01	−0.01	−0.01
3. Never had paid work	0.02	−0.02	0.02
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.30^{***}	0.27^{***}	0.25^{***}
5	0.50^{***}	0.42^{***}	0.41^{***}
6	0.61^{***}	0.50^{***}	0.49^{***}
7-8	0.78^{***}	0.63^{***}	0.61^{***}
Top 9-10	0.93^{***}	0.74^{***}	0.76^{***}
11. refused	0.47^{***}	0.33^{***}	0.37^{***}
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	-0.11^{*}	−0.04	−0.02
2. Protestant	−0.09	−0.03	0.02
3. Orthodox	-0.36^{***}	-0.42^{***}	-0.38^{***}
4. Other Christian	−0.12	−0.01	0.01
6. Islamic	0.04	0.01	0.08
7. Buddhist	−0.04	-0.14^{*}	-0.15^{**}
8. Hindu	-0.43^{***}	-0.58^{***}	-0.61^{***}
10. Other Religions	0.02	−0.03	−0.07
11. Refused	−0.13	−0.13	−0.09
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.64^{***}	0.28^{*}	0.16
2. Left / center left	0.54^{***}	0.25^{***}	0.14^{*}
3. Center / liberal	0.52^{***}	0.30^{***}	0.24^{***}
4. Right / conservative	−0.03	0	0.03
5. Far right (fascist, etc.)	−0.34	−0.15	−0.09

Table 7 – Continued

Variable	Prices - Model I	Prices - Model II	Prices - Model III
6. Other or invalid balot	0.21	0.08	0.04
7. Refused	0.13*	0.05	0.02
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	−0.02	−0.01	0.01
3rd	0.03	0.06	0.05
4th	0.16*	0.14*	0.13*
5th	0.38***	0.37***	0.35***
6.refused	−0.10	−0.03	−0.02
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)
1 Married	−0.09	−0.08	−0.08
2 Separated/ divrcd	−0.09	−0.05	−0.04
3 Widowed	−0.17**	−0.17**	−0.16**
4 Refused	0.07	0.11	0.17
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	−0.08	−0.08	−0.10*
3 A town or a small city	−0.06	−0.08	−0.09
4 Suburbs or outskirts	−0.06	−0.07	−0.07
5 A big city	−0.01	−0.05	−0.06
No school-age children *[var: no_kids]*	0.06	0.06	0.07
Social orientation *[var: q2a - q2e]*			
a: Private enterprise best solves [country's] econ. problems		−0.02	−0.03
b: It is the govt's role to reduce income inequality		−0.10***	−0.03
c: [Country] should limit importing foreign products to protect econ.		−0.09***	−0.07**
d: [Country] should limit immigration to protect our way of life		0.15***	0.09***
e: International org. in [country] have too much power		0.10**	0.09**
Trust			
q4_trust_people		0.09***	0.09***
q5a_trust_uni		0.06***	0.03*
q5b_trust_media		0.03**	0.02*
q5c_trust_business		−0.04**	−0.01
q5d_trust_gov		0.05***	0.04**
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		0.07*	0.08**
2. +5 trips		0.11*	0.17***
Car use (in a week) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		−0.03	−0.04
2. +8h		−0.08	−0.08
Doesn't eat meat *[var: no_meat]*		−0.04	0.03
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.52***	0.30***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural processes			−0.14

Table 7 – Continued

Variable	Prices - Model I	Prices - Model II	Prices - Model III
3. Equally due to natural and human			−0.11
4. Mostly due to human activity			0
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			0.04
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			0.08*
b: We worry too much about future env. and too little about prices and jobs			−0.17***
c: Almost everything we do in modern life harms the env.			0.11***
d: People worry too much about human progress harming the env.			−0.02
e: To protect the env. [country] needs economic growth			−0.02
f: Economic growth always harms the environment			0.08***
Environmental attitudes *[var: q12a - q12g]*			
a: It is too difficult for someone like me to do much about the env.			0
b: I do what is right for the env., even if it costs more money or time			0.47***
c: There are more important things to do than protect the env.			−0.07*
d: No point in doing what I can for the env. unless others do the same			−0.06***
e: Many of the claims about env. threats are exaggerated			−0.16***
f: I don't know whether the way I live is helpful or harmful			0.10***
g: Env. problems have a direct effect on my everyday life			0.15***
Country dummies included	YES	YES	YES
/cut1	−1.73***	0.15	1.28***
/cut2	−0.42	1.54***	2.77***
/cut3	0.77***	2.81***	4.15***
/cut4	3.16***	5.33***	6.81***
Standard errors were clustered by country			
Pseudo R2	0.06	0.10	0.13
N	29160	29160	29160

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p<0.1, ** p<0.05, *** p<0.01.

Table 8: (B) Ordered logit regression: willingness to pay higher taxes to protect the environment *[var: taxes_cat_recoded]*

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	−0.06*	0.07**	0.11***
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	−0.16*	−0.14*	−0.11
Gen X (1965/1979)	−0.13	−0.13*	−0.11*
Bby Boomer (1946/1964)	−0.08	−0.10	−0.11*
SilentGen (1918/1945)	0.02	−0.03	0
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	−0.32*	−0.31*	−0.35*
Secondary	−0.21	−0.24	−0.31
Post-secondary/tertiary	−0.09	−0.17	−0.27
University BA/MA	0.15	−0.04	−0.15

Table 8 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
PhD	0.77***	0.35	0.28
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not in paid work	0	−0.02	−0.02
3. Never had paid work	0.13	0.09	0.12
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.29***	0.25***	0.23***
5	0.46***	0.39***	0.38***
6	0.61***	0.49***	0.48***
7-8	0.73***	0.56***	0.55***
Top 9-10	0.79***	0.59***	0.62***
11. refused	0.40***	0.27**	0.31**
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	−0.10	−0.03	0
2. Protestant	−0.09	−0.04	0.02
3. Orthodox	−0.30***	−0.35***	−0.28**
4. Other Christian	−0.25	−0.15	−0.13
6. Islamic	−0.19	−0.23*	−0.19
7. Buddhist	−0.01	−0.14**	−0.12**
8. Hindu	−0.89**	−1.05***	−1.10***
10. Other Religions	0.11	0.05	0.04
11. Refused	−0.05	−0.07	−0.05
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.83***	0.41***	0.31**
2. Left / center left	0.66***	0.31***	0.21***
3. Center / liberal	0.51***	0.26***	0.21***
4. Right / conservative	−0.14	−0.08	−0.05
5. Far right (fascist, etc.)	−0.47*	−0.21	−0.16
6. Other or invalid balot	0.30	0.20	0.18
7. Refused	0.10	0.02	0.01
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	−0.04	−0.03	−0.02
3rd	−0.01	0.02	0.01
4th	0.07	0.07	0.06
5th	0.17*	0.17**	0.15*
6.refused	−0.17*	−0.08	−0.09
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)
1 Married	−0.06	−0.05	−0.04
2 Separated/ divrcd	−0.11	−0.05	−0.04
3 Widowed	−0.16**	−0.16**	−0.14*
4 Refused	−0.05	−0.01	0.04
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	0.04	0.02	0
3 A town or a small city	0.08	0.03	0.02

Table 8 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
4 Suburbs or outskirts	0.11	0.07	0.07
5 A big city	0.17*	0.10	0.08
No school-age children *[var: no_kids]*	0.04	0.03	0.06
Social orientation *[var: q2a - q2e]*			
a: Private enterprise best solves [country's] econ. problems		0.04	0.02
b: It is the govt's role to reduce income inequality		−0.15***	−0.09***
c: [Country] should limit importing foreign products to protect econ.		−0.07***	−0.05**
d: [Country] should limit immigration to protect our way of life		0.20***	0.16***
e: International org. in [country] have too much power		0.10***	0.08***
Trust			
q4_trust_people		0.13***	0.12***
q5a_trust_uni		0.04**	0.02
q5b_trust_media		0.06***	0.04***
q5c_trust_business		−0.05**	−0.02
q5d_trust_gov		0.08***	0.08***
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		0.06	0.07*
2. +5 trips		0.05	0.09
Car use (in a week) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		−0.04	−0.04
2. +8h		−0.06	−0.05
Doesn't eat meat *[var: no_meat]*		−0.01	0.05
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.44***	0.26***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural processes			−0.31***
3. Equally due to natural and human			−0.35***
4. Mostly due to human activity			−0.26*
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			−0.02
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			0.06***
b: We worry too much about future env. and too little about prices and jobs			−0.18***
c: Almost everything we do in modern life harms the env.			0.10***
d: People worry too much about human progress harming the env.			−0.04*
e: To protect the env. [country] needs economic growth			−0.02
f: Economic growth always harms the environment			0.10***
Environmental attitudes *[var: q12a - q12g]*			
a: It is too difficult for someone like me to do much about the env.			0.02
b: I do what is right for the env., even if it costs more money or time			0.38***
c: There are more important things to do than protect the env.			−0.06*
d: No point in doing what I can for the env. unless others do the same			−0.05*
e: Many of the claims about env. threats are exaggerated			−0.14***
f: I don't know whether the way I live is helpful or harmful			0.11***
g: Env. problems have a direct effect on my everyday life			0.14***
Country dummies included	YES	YES	YES

Table 8 – Continued

Variable	Taxes - Model I	Taxes - Model II	Taxes - Model III
/cut1	−1.06***	1.04***	1.69***
/cut2	0.20	2.42***	3.14***
/cut3	1.36***	3.67***	4.46***
/cut4	3.56***	5.98***	6.86***
Standard errors were clustered by country			
Pseudo R2	0.05	0.09	0.12
N	29036	29036	29036

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p<0.1, ** p<0.05, *** p<0.01.

Table 9: (C) Ordered logit regression: willingness to cut own standard of living to protect the environment *[var: standard_cat_recoded]*

Variable	Standard - Model I	Standard - Model II	Standard - Model III
Sex *[var: male]*			
0 female	(base)	(base)	(base)
1 male	−0.16***	−0.02	0.04
Age generation group *[var: age_gen_group]*			
Gen Z (1995/2012)	(base)	(base)	(base)
Millenials (1980/1994)	−0.12	−0.10	−0.08
Gen X (1965/1979)	−0.10	−0.11	−0.12
Bby Boomer (1946/1964)	−0.13	−0.18**	−0.21***
SilentGen (1918/1945)	−0.11	−0.20*	−0.18*
Education *[var: edu_groups]*			
No education	(base)	(base)	(base)
Primary	−0.27	−0.28*	−0.30*
Secondary	−0.17	−0.21	−0.28
Post-secondary/tertiary	−0.05	−0.14	−0.27
University BA/MA	0.12	−0.07	−0.21
PhD	0.50**	0.13	0.03
Work status *[var: work]*			
1. Currently in paid work	(base)	(base)	(base)
2. Currently not in paid work	−0.04	−0.06*	−0.04
3. Never had paid work	0.07	0.04	0.10
Social status - stated *[var: social_status_grouped]*			
Bottom 1-3	(base)	(base)	(base)
4	0.25***	0.24***	0.20***
5	0.42***	0.37***	0.35***
6	0.49***	0.41***	0.37***
7-8	0.53***	0.42***	0.37***
Top 9-10	0.50**	0.36*	0.36*
11. refused	0.45***	0.37***	0.38***
Religion *[var: religion]*			
0. No religion	(base)	(base)	(base)
1. Catholic	−0.10*	−0.01	0.02
2. Protestant	−0.10	−0.03	0.01
3. Orthodox	−0.39***	−0.42***	−0.35**
4. Other Christian	−0.06	0.05	0.08
6. Islamic	0.12	0.06	0.16

Table 9 – Continued

Variable	Standard - Model I	Standard - Model II	Standard - Model III
7. Buddhist	0.01	−0.08	−0.08
8. Hindu	−0.54***	−0.69***	−0.73***
10. Other Religions	0.22	0.14	0.11
11. Refused	−0.20	−0.19	−0.16
Voting in previous election *[var: LeftRightSpectrum]*			
0. Didn't vote	(base)	(base)	(base)
1. Far left (communist,etc.)	0.82***	0.45***	0.32***
2. Left / center left	0.51***	0.22***	0.10**
3. Center / liberal	0.43***	0.23***	0.18***
4. Right / conservative	−0.14	−0.08	−0.04
5. Far right (fascist, etc.)	−0.35*	−0.18*	−0.11
6. Other or invalid balot	0.35*	0.24	0.19*
7. Refused	0.08	0.00	−0.04
Household income quantiles *[var: hhINC_quant_refused]*			
1st	(base)	(base)	(base)
2nd	−0.09	−0.08	−0.09
3rd	−0.01	0.04	0.00
4th	0.00	0.00	−0.03
5th	0.00	0.01	−0.03
6.refused	−0.24*	−0.17	−0.17
Marital Status *[var: marital_status]*			
0 Never married	(base)	(base)	(base)
1 Married	−0.03	−0.02	0.00
2 Separated/ divrcd	0.01	0.05	0.06
3 Widowed	−0.09	−0.07	−0.04
4 Refused	0.16	0.22*	0.29**
Living Location *[var: living_loc]*			
1 A farm/home in the country	(base)	(base)	(base)
2 A country village	−0.06	−0.06	−0.06
3 A town or a small city	−0.10	−0.11	−0.11
4 Suburbs or outskirts	−0.07	−0.07	−0.04
5 A big city	−0.12	−0.15	−0.15
No school-age children *[var: no_kids]*	−0.02	−0.02	−0.01
Social orientation *[var: q2a - q2e]*			
a: Private enterprise best solves [country's] econ. problems		0.00	−0.03
b: It is the govt's role to reduce income inequality		−0.13***	−0.07**
c: [Country] should limit importing foreign products to protect econ.		−0.09***	−0.06**
d: [Country] should limit immigration to protect our way of life		0.17***	0.10***
e: International org. in [country] have too much power		0.07**	0.04*
Trust			
q4_trust_people		0.09***	0.08**
q5a_trust_uni		0.06***	0.03*
q5b_trust_media		0.02	0.01
q5c_trust_business		−0.05***	−0.02
q5d_trust_gov		0.04*	0.03*
Plane trips (12 months) *[var: plane_trips_cat]*			
0. No trips		(base)	(base)
1. 1-4 trips		−0.01	0.00
2. +5 trips		0.03	0.10

Table 9 – Continued

Variable	Standard - Model I	Standard - Model II	Standard - Model III
Car use (in a week) *[var: cat_use_cat]*			
0. 0h		(base)	(base)
1. 1-7h		0.00	0.00
2. +8h		−0.04	−0.03
Doesn't eat meat *[var: no_meat]*		−0.12	−0.04
Avoids buying due to env. reasons *[var: q19b_avoid_buyig]*		0.51***	0.29***
Climate change reasons *[var: q8_clim_change_reasons]*			
1. Climate's not changing			(base)
2. Changes due to natural processes			−0.19*
3. Equally due to natural and human			−0.16
4. Mostly due to human activity			−0.08
Enjoys being in nature *[var: q15_enjoy_being_in_nature]*			0.03
Environmental perspectives *[var: q10a - q10f]*			
a: Science'll solve env. problems without changing our lifestyle			−0.02
b: We worry too much about future env. and too little about prices and jobs			−0.15***
c: Almost everything we do in modern life harms the env.			0.13***
d: People worry too much about human progress harming the env.			−0.06***
e: To protect the env. [country] needs economic growth			−0.12***
f: Economic growth always harms the environment			0.10***
Environmental attitudes *[var: q12a - q12g]*			
a: It is too difficult for someone like me to do much about the env.			−0.03
b: I do what is right for the env., even if it costs more money or time			0.41***
c: There are more important things to do than protect the env.			−0.06*
d: No point in doing what I can for the env. unless others do the same			−0.08***
e: Many of the claims about env. threats are exaggerated			−0.12***
f: I don't know whether the way I live is helpful or harmful			0.07**
g: Env. problems have a direct effect on my everyday life			0.19***
Country dummies included	YES	YES	YES
/cut1	−1.83***	−0.20	0.03
/cut2	−0.60**	1.10***	1.43***
/cut3	0.55*	2.33***	2.76***
/cut4	2.98***	4.89***	5.50***
Standard errors were clustered by country			
Pseudo R2	0.06	0.09	0.13
N	29138	29138	29138

Notes: Model I: only demo; Model II: + social orientation & consumer behavior; Model III: + environmental perspectives and attitudes. Significance levels: * p<0.1, ** p<0.05, *** p<0.01.

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