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A global view of eco-social policy support: insights from six high-emission countries

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Research Article

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Abstract

Non-Technical Summary. Societies are failing to meet basic human needs while simultaneously respecting ecological limits. This article examines the political feasibility of three of the most commonly discussed eco-social policies which aim to align social objectives with planetary boundaries. We use large-scale representative survey data from six countries. Support for all policies is higher in three middle-income countries with a higher number of unmet social needs compared to three high-income countries that mostly fail to respect planetary limits. Both across and within countries, beliefs about the environment and the economy are considerably more important for explaining support than demographic factors such as gender, age, education, or income.

Technical Summary. Eco-social policies aim to establish a social floor while respecting planetary boundaries and to improve the social outcomes of ecological policies. Research on public attitudes towards eco-social policies remains limited, focusing exclusively on people in high-income countries in Europe. Using representative samples in three diverse middle-income countries (Brazil, South Africa, China) and three diverse high-income countries (US, UK, Germany) – which, together, are responsible for 49% of total global CO_2 emissions – we examine differences in public support for three eco-social policies: universal basic services, a cap on income and wealth, and a redistributive carbon tax ($N = 11{,}964$). Utilizing ordinal logistic regression models, we find that participants in poorer countries with more social shortfalls show stronger support for policies that are focused on strengthening basic human needs compared to participants from high-income countries. However, within countries, values related to nature and beliefs in the 'free market' are considerably more important in explaining support than socio-demographic characteristics such as income or education, whose association with eco-social policy support is inconsistent. Moreover, the strength of the relationship between policy support and these explanatory variables varies considerably across countries, underlining the importance of context specific explanations for eco-social policy support.

Social Media Summary. People in middle-income countries show consistently higher support for policies that combine ecological and social goals than those in high-income countries.

1. Introduction

A key goal of sustainability is meeting people's needs without exceeding planetary limits (Costanza, 1989). To date, no country has been able to achieve this goal (Fanning et al., 2021; O'Neill et al., 2018). Richer countries offer high levels of human need satisfaction at the cost of transgressing planetary boundaries. Poorer countries are characterized by low planetary overshoot, but high social shortfalls – an inability to meet key minimum social standards such as nutrition, sanitation, or access to energy (ibid.).

There is an increasing effort to address this 'dual challenge' (Leach et al., 2018) and to suggest policies that support successful pathways towards low-carbon/high well-being development (Roberts et al., 2020). In this context, the concept of *sustainable welfare* has gained traction in recent years as a 'theoretical and normative framework for redesigning existing policies in an "eco-social" direction' (Koch, 2018, p. 42) (see, e.g., Gough, 2017; Koch & Mont, 2016). The key instrument to practically implement such a sustainable welfare system is eco-social policies. Eco-social policies seek to make climate and other environmental policies fairer (Babirye, 2022; Bonetti & Villa, 2023; Galgóczi, 2022; Mandelli, 2022) and to align social policies with planetary boundaries (Büchs, Koch, et al., 2024; Steffen et al., 2015).

In democratic countries, public opinion has an impact on public policymaking, despite the organized influence of political groups (Anderson et al., 2017; Burstein, 2003; Schaffer et al., 2022). In short, politicians are to some degree responsive to public opinion

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on a given topic. From a political perspective, it is thus important to gauge the practical feasibility of eco-social policies by examining the extent to which they garner public support (Burstein, 2003; Page & Shapiro, 1983).

Despite a growing number of theoretical and empirical studies on public support for eco-social policies, several important knowledge gaps remain. First, research on public support for eco-social policies across countries and particularly in large, high-emitting countries outside of Europe and North America is lacking. Several empirical studies have started to emerge but remain concentrated on high-income countries in Europe, with a focus on Sweden (Emilsson, 2022; Fritz et al., 2021; Khan et al., 2023; Lee & Koch, 2023; Lee et al., 2023) and Germany (Fritz & Eversberg, 2023). The few existing cross-country studies look at sets of European countries or only examine redistribution of carbon tax revenues without considering other eco-social policies (Mohammadzadeh Valencia et al., 2024). This is a crucial omission. As Gugushvili and Otto (2023) propose in their theoretical framework, contextual factors at the country level are likely to influence individual support for eco-social policies.

To address these concerns, this paper seeks to understand public support for three eco-social policies in three diverse high-income countries – Germany, United States, and United Kingdom – and three diverse middle-income countries – Brazil, China, and South Africa. This sample includes the largest CO_2 emitting country from each continent. We examine support for redistributing revenues from carbon taxes to low- and middle-income households, caps on income and wealth, and universal basic services (UBS) based on representative survey data (total sample size of 11,964). We analyse the importance of knowledge-based, value-based, and socio-demographic factors for explaining policy support and compare differences in associations between the six countries using ordered logistic regression models for pooled data with country fixed effects and within-country analyses.

The contributions of this article are threefold. First, by exploring support for eco-social policies in a diverse set of countries, we empirically expand on the hitherto euro-centric focus in eco-social policy research and show that support is considerably higher in middle-income compared to high-income countries. The use of representative samples directly relates to calls from Savin and Van Den Bergh (2024) to gather robust empirical data on public support for these types of policies. Second, utilizing ordered logistic regression approaches, our results stress the importance of attitudinal and ideological factors over demographic variables in explaining public support within countries. This supports and expands previous findings by Fritz and Eversberg (2023) and Khan et al. (2023), suggesting a superiority of value-based over demographic explanations within countries, but following patterns of self-interest – people in poorer countries are more supportive than those in richer countries – at the macro level. Third, accounting for country differences, we are able to identify similarities and context-specific differences that offer robust empirical evidence for recent theoretical models to explain public support for eco-social policies (Gugushvili & Otto, 2023).

2. Sustainable welfare and eco-social policies

Sustainable welfare has emerged as a concept that aims to capture the synergies between social and environmental objectives (Koch & Mont, 2016) and between social justice and ecological sustainability (Fritz & Lee, 2023). At its core, sustainable welfare is concerned with 'satisfying human needs within ecological limits, from an intergenerational and global perspective' (Koch & Mont, 2016, p. 704). Satisfying and meeting human needs represents the lower of two boundaries in line with concepts such as 'provisioning systems' (Fanning et al., 2020), needs-based approaches (Max-Neef, 1991), social foundations (Raworth, 2017), and consumption corridors (Fuchs et al., 2021). Ecological limits are based on biophysical or planetary boundaries (Richardson et al., 2023; Rockström et al., 2023; Steffen et al., 2015), bringing to the forefront philosophies of limitarianism (Robeyns, 2023).

The goal of eco-social policies, then, is to put sustainable welfare into practice by identifying and steering societies and economies towards a safe operating space based on maximum and minimum levels for needs satisfaction. In broad terms, this implies the promotion of new patterns of production, consumption, and investment (Koch, 2018) that should be based on (a) providing minimum basic needs, (b) tackling environmentally harmful luxury, (c) promoting social and political inclusion, (d) ensuring a fair distribution of resources and opportunities, and (e) decoupling financial reliance of the welfare state from economic growth (Bohnenberger, 2020; Büchs, 2021; Koch, 2022).

Often-discussed examples include redistributing revenues from carbon or energy taxes to the population to reverse regressive distributional impacts (Büchs et al., 2021; European Commission, 2022; Gough, 2017, pp. 139–140), policies that promote greater income and wealth equality (Galgóczi, 2022; Koch, 2022; Khan et al., 2023), working time reduction (Benegiamo et al., 2023; Koch, 2022; Lee & Koch, 2023; Otto & Gugushvili, 2020), UBS (Bohnenberger, 2020; Büchs, 2021; Coote & Percy, 2020; Gough, 2019), and universal basic income or minimum income schemes (Bohnenberger, 2020; Büchs, 2021; Koch, 2022; Langridge, 2024; McGann & Murphy, 2023; Nenning et al., 2023). In this article, we focus on one policy that is aimed at the lower boundary, primarily targeting the satisfaction of human needs and promoting social inclusion: UBS; one policy targeting the upper boundary of biophysical limits and luxury consumption: income and wealth caps; and one policy with a predominant focus on the fair distribution of costs and benefits related to environmental policies: a redistributive carbon tax.

2.1. Universal basic services

The core principle of UBS is that

> services that satisfy people's basic needs, including health and social care, education, and basic level of housing, food, mobility and information, should be provided to everyone through public or collective institutions according to need, regardless of the ability to pay and free at the point of use. (Büchs, 2021, p. 3; see also Coote & Percy, 2020; Gough, 2019)

Concretely, UBS covers services which already exist in many countries such as public health services and education, but sustainable welfare debates propose to expand them to include the provision of public transport, sustainable home energy, or ecological social housing (Coote & Percy, 2020). Büchs (2021) theoretically analysed how UBS may meet criteria of sustainable welfare. In terms of the four principles or goals of sustainable welfare, UBS aims primarily, but not exclusively, at the satisfaction of human needs in a current context of inflated housing prices, increasing prices for public transport, and volatile energy prices, where markets are unable to meeting everyone's basic needs (Bowman et al., 2014).

UBS also has the potential to bolster social and political inclusion. The satisfaction of basic needs creates the material condition

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for individuals to be more autonomous and frees up capacity to participate in democratic processes and initiatives (Büchs, 2021).

Lastly, whether and how UBS contributes to maintaining planetary boundaries depends on their design and the state's political willingness to be a sustainable role model in the provision of public services. Whereas reducing energy poverty and homelessness as well improving people's mobility through free provision of public transport will result in small increases in carbon emissions (Bruckner et al., 2022), these services could be designed in an ecologically friendly way – e.g. vouchers for renewable energy for electricity, energy efficient social housing, electric public transport – that would minimize emission increases (Brand-Correa & Steinberger, 2017). In addition, the potential increase in consumption to provide for basic needs, and the resulting emissions, could be counter-acted with measure to reduce 'consumption at the top end of the distribution' (Büchs, 2021, p. 5).

2.2. Income and wealth caps

There are several key mechanisms through which people at the top-end of the income and wealth distribution negatively affect planetary boundaries (Green & Healy, 2022; Nielsen et al., 2021). First, there has been ample and robust empirical evidence that wealthy individuals contribute disproportionately to carbon emissions (Büchs, Koch, et al., 2024; Köchling et al., 2025; Otto et al., 2019; Schöngart et al., 2025). At an individual level, high-income, high-status, or high-wealth individuals have personal carbon footprints multiple times higher than their national average, for instance due to more frequent and longer air travel (Wadud et al., 2024), larger or multiple homes, and emissions from private and work-related vehicle use (Oswald et al., 2020). At the aggregate level, the wealthiest 10% are responsible for around 50% of global emissions (Kartha et al., 2020) and for two-thirds of overall temperature increases (Schöngart et al., 2025).

There is robust evidence for a positive relationship between income inequality and carbon emissions in *high*-income countries (Grunewald et al., 2017; Pickett et al., 2024; Rojas-Vallejos & Lastuka, 2020). Although redistribution to the poor will increase their energy use (Jorgenson et al., 2017), the resulting increases in carbon emissions from higher energy use would be marginal – in the area of 0.9–1.4% (Büchs et al., 2023) or 1.6–2.1% (Bruckner et al., 2022) – compared to the potential emissions reductions from caps resulting in higher energy savings achieved among high-income household (Büchs et al., 2023).

Second, high-wealth individuals contribute indirectly to emissions through investments in stocks and real estate or through ownership of production capacities linked to fossil fuels (Nielsen et al., 2021) and by using their power to hinder political processes related to the introduction of climate policies (Brulle, 2018; De Bruycker & Colli, 2023; Kenner, 2019; Robeyns, 2019).

Third, economic inequality, but in particular the increasing shares of income and wealth at the top end of the distribution act as impediment to cooperation and collective action as they are decreasing trust among citizens and in politicians (Barone & Mocetti, 2016; Fairbrother & Martin, 2013; Graafland & Lous, 2019). This is a crucial negative consequence of economic inequalities. Collective action is not only a fundamental condition for climate action but also promotes social and political inclusion. Revenues from a cap on incomes and wealth, which often tends to be operationalized as a marginal tax rate of 100% above a certain monetary value (François et al., 2023), could be used to finance UBS, thereby indirectly contributing to a fair distribution of resources and opportunities and decoupling financial reliance of the welfare state from economic growth.

2.3. Redistributive carbon tax

The last eco-social policy – revenue recycling from carbon taxes as a redistribution tool – is more commonly discussed in economic and policy research outside sustainable welfare circles (Carattini et al., 2019; Jagers et al., 2019; Klenert et al., 2018; Maestre-Andrés et al., 2021; Mohammadzadeh Valencia et al., 2024; Sumner et al., 2011). Whereas there are different ways in which revenues could be used, for example to fund environmental projects (Carattini et al., 2019; Maestre-Andrés et al., 2019), here we focus on the distribution of carbon tax revenues to low-income households, in line with the social and justice dimension of eco-social policies and sustainable welfare. This type of policy can alleviate the regressive consequences of carbon or energy taxes and improve fair distribution of the sharing of costs and responsibilities.

2.4. Public support for eco-social policies

While the aforementioned policies are prominently discussed from a conceptual and theoretical perspective (Bohnenberger, 2020, 2023; Fitzpatrick et al., 2022), empirical studies examining their support remain limited in number and scope (Savin & Van Den Bergh, 2024). This is an important omission.

Studies have repeatedly demonstrated a positive association between public opinion on a given policy topic and policy responsiveness. An early systematic review by Burstein (2003) concluded that the impact of public opinion on public policy is 'substantial', and more recent evidence in the domains of environmental (Agnone, 2007; Anderson et al., 2017) and climate policy (Schaffer et al., 2022) further substantiates this finding. However, we acknowledge that public opinion is not the sole factor shaping policy outcomes. Its influence tends to be strongest when the issue is highly salient (Agnone, 2007; Anderson et al., 2017), while countervailing forces – such as lobbying by organized interests (Böhler et al., 2022; De Bruycker & Colli, 2023) and compromise-seeking in coalition-based parliamentary democracies (Bellamy, 2012; Martin, 2004) – can dilute or redirect policy proposals. Taken together, this suggests that while favourable public opinion does not guarantee that the policies ultimately implemented will fully reflect public preferences, it is often a necessary condition for an issue to reach and remain on the policy agenda.

Existing research identified varying levels of support for different eco-social policies. Support for UBS has shown to be particularly high. For example, 66% of the Swedish population endorsed free public transport (Lee et al., 2023), and a survey of the German public reported similarly high support, with 69% in favour (Wehrmann, 2019). In Sweden, national policy under the right-leaning government has prioritized reducing fuel taxes to lower petrol and diesel prices, yet public transport policy is largely formulated at the municipal and regional levels. Several municipalities have introduced free public transport, reflecting and reinforcing the broader public support for such measures (*Fare-Free Public Transport*, n.d.). A comparable development occurred in Germany. In 2022, the coalition government introduced the 'Deutschlandticket', which allowed unlimited access to all public transport and regional trains for only €9 per month. Among the 13.5 million people who used it, 89% supported its continuation (Gewerkschaftsbund, 2025).

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A special Eurobarometer survey showed that 71% of the EU population supported taxing high-carbon products and redistributing revenues to vulnerable households (European Commission, 2022, p. 107). Similarly, several studies, including one meta-analysis, have demonstrated that carbon tax revenue recycling to lower income households increases support for carbon taxes (Maestre-Andrés et al., 2021, 2019; Mohammadzadeh Valencia et al., 2024; Sumner et al., 2011). In line with these public demands, the European Union recently introduced the Social Climate Fund. The Fund is designed 'to cushion the impact [of the EU Emissions Trading System] on those who may struggle the most' – vulnerable people and small businesses – and will be financed through revenues generated from the upcoming EU ETS2 (European Commission, 2025). Similarly, the former German coalition government comprised of SPD, Greens, and FDP had agreed to introduce a 'climate allowance' to compensate households for rising costs associated with carbon pricing. Although this measure has not yet been implemented, it has recently been the subject of renewed parliamentary debate in Germany (Bundestag, n.d..), again suggesting a link between public opinion and policy responsiveness.

Several studies found medium levels of support for redistributive policies such as income and wealth caps. For instance, Khan et al. (2023) discovered that around 40% of the Swedish population supported a wealth tax and 25% a cap on incomes, while Lee et al. (2023) found that 24% of the urban Swedish population endorsed a cap on incomes.

The three main types of explanations for public support for eco-social policies highlight the role of (1) value-based factors, (2) demographic characteristics as measures of self-interest, and (3) knowledge-related factors. People with more 'left'-leaning attitudes and values, e.g. those that support redistribution, equality, and altruistic and biospheric values, tend to be more supportive of eco-social policies or mutually support climate and social policies (Fritz & Eversberg, 2023; Fritz & Koch, 2019; Gugushvili & Otto, 2023; Khan et al., 2023; Otto & Gugushvili, 2020).

Findings on socio-demographic characteristics such as income, age, and gender have been less coherent. One the one hand, studies find that people on higher incomes tend to be less supportive of eco-social policies, probably because high-income earners are less supportive of redistributive policies (Emilsson, 2022; Khan et al., 2023; Otto & Gugushvili, 2020). On the other hand, however, Fritz and Koch (2019) find that high earners express more support for joint climate and social policies, perhaps driven by the fact that high earners are more supportive of climate policies (Arndt et al., 2023; Beiser-McGrath & Busemeyer, 2024; Fairbrother et al., 2019; Gugushvili & Otto, 2023). Similarly, age has not been consistently associated with different types of eco-social policies (Emilsson, 2022; Fritz & Koch, 2019; Khan et al., 2023). Lastly, identifying as a woman has been shown to be positively linked to support for eco-social policies (Emilsson, 2022; Fritz & Koch, 2019; Khan et al., 2023). In terms of education, some research finds that higher levels have a positive association with support for eco-social policies (Emilsson, 2022; Fritz & Koch, 2019; Otto & Gugushvili, 2020), while others did not find an association (Khan et al., 2023).

In sum, empirical research examining support for eco-social policies and the drivers thereof remains scarce, with a focus on single European countries. The few existing international, cross-country studies did not actually investigate eco-social policies, but rather synergies between separate welfare and climate policy proposals.

This leaves room for several important questions that we intend to address empirically in this article. First, how strong is public support for eco-social policies in countries with diverse socio-economic conditions, cultures, social welfare systems, and degrees of climate vulnerability? Second, what are the most important drivers of this support and do they differ across countries? To answer these questions, we examine public support for the three aforementioned eco-social policies – redistribution of carbon tax revenues, income and wealth caps, and UBS – in three middle-income and three high-income countries, covering the largest CO_2 emitting country from each continent.

3. Methods

3.1. Data

Data were collected by the international market research firm Skopos Research using online surveys. We instructed Skopos to draw approximately 2000 individuals from each of the six countries (see below) so that each country sample meets representative quotas for age, gender, and income.

We received ethical approval from the Leeds University Business School's ethical board (reference: LTLUBS-339) prior to data collection. Participants were informed about the aims of this research prior to participation and gave consent for their anonymized data to be used for publication purposes.

We designed the questionnaire in English and Skopos translated it into the respective languages. We collected data from Brazil ($N = 2000$), China ($N = 2027$), South Africa ($N = 2011$), Germany ($N = 2013$), UK ($N = 1906$), and USA ($N = 2007$) which are three middle-income (Brazil, China, and South Africa) and three high-income countries (Germany, USA, and UK). Our sample includes the country with the largest carbon emissions from each continent, cumulatively responsible for 49% of total global CO_2 emissions (Global Carbon Budget, 2024). In terms of social floors and planetary boundaries Germany, the USA and UK are in the high planetary overshoot – low social shortfall corridor, China and Brazil build part of the high overshoot – middle shortfall corridor and South Africa is part of a group of countries characterized by high planetary overshoot and high social shortfall (Fanning et al., 2022).

The survey took around 8 minutes to complete and included questions on the individual's beliefs, values, support for different climate policy instruments and different eco-social policy proposals, and socio-demographic characteristics. Detailed overviews of each survey question used in the study can be found in Table 1 in the supplementary materials. Sample demographics can be found in the supplementary materials Tables 2–7.

3.2. Measurements

We collected data on attitudes towards three eco-social policies: UBS ('The government should put healthcare, education, and energy production into public hands and make them freely available to all citizens'), an income and wealth cap ('The government should implement a cap on excessive income and wealth to reduce emissions from luxury consumption'), and a redistributive carbon tax ('The government should distribute revenues from a carbon tax to low- and middle-income households to support them with price increases'). Participants indicated their support for each of these policies on a 6-point Likert-type scale ranging from (1) = 'strongly disagree' to (6) = 'strongly agree'.

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We included four different well-established ideological variables: biospheric values, individualistic worldviews, political trust, and free-market beliefs.

Biospheric values were measured on a 3-item (e.g. 'Preventing pollution: protecting natural resources'), 7-point Likert-type scale developed by De Groot and Steg (2008) ranging from (1) = 'not at all important to me' to (7) = 'very important to me'.

Political trust was based on a 4-item, 7-point Likert-type scale measure by Harring and Jagers (2013) that asks participants to rate how much they trust (a) the government, (b) the parliament, (c) public authorities, and (d) politicians from (1) = 'not at all' to (7) = 'extremely'.

To measure individualistic worldviews, we drew on Kahan et al.'s (2011) 6-item (e.g. 'The government should stop telling people how to live their lives', 'Sometimes the government needs to make laws that keep people from hurting themselves'), 6-point Likert-type scale that ranged from (1) = 'strongly disagree' to (7) = 'strongly agree'.

Free-market beliefs was a 6-item, 6-point Likert-type scale measure ranging from (1) = 'strongly disagree' to (6) = 'strongly agree' (e.g. 'An economic system based on free markets unrestrained by government interference automatically works best to meet human needs') developed by Heath and Gifford's (2006).

We also included a measure of self-reported climate change knowledge by Vainio and Paloniemi (2013). Participants had to rate the degree to which they feel informed about the causes, consequences, and ways to fight climate change, ranging from (1) = 'not informed at all' to (4) = 'well informed'. Last, we included several socio-demographic variables that had previously been linked to policy support (Bergquist et al., 2022): age, gender, income, and education.

3.3. Statistical methods

To draw conclusions across- and within-country differences in eco-social policy support, we used three different statistical methods: chi-squared tests, mixed multivariate analysis of variance (MANOVA), and ordered logistic regression models. To test for significant differences in the proportion of supporters, non-supporters, and those undecided in their support across countries, we used chi-squared tests. For each eco-social policy, we coded those who selected 'Strongly disagree' and 'Disagree' as non-supporters, those who selected 'Strongly agree' and 'Agree' as supporters, and the rest as undecided.

As we were interested in the similarities and differences of associations between our main ideological predictors and support for each eco-social policy, we used ordered logistic regression models. First, we used the pooled data including participants from all countries and regressed support for each eco-social policy on the different independent variables described above, including country binary variables. Second, to draw out within-country effects, we performed the same three regressions – one for each eco-social policy – but separately for each country sample. This allowed us to compare the associations between independent variables and eco-social policy support across countries, identifying commonalities and differences.

We checked for multicollinearity in the full regression models using variance inflation factors (see supplementary materials Table 8). Here, we excluded income because of a high share of missing observations for individuals in Brazil. As can be seen in Tables 2 and 3 in the supplementary materials, coefficient estimates for the main predictors did not change significantly in the pooled sample with and without income.

4. Results

4.1. Support across eco-social policies across countries

The proportions of supporters, non-supporters, and undecided respondents per eco-social policy and country are presented in Figure 1. Support varied between countries for all three eco-social policies ($725.35 < \chi^2 < 1234.66$, all dfs = 25, all ps < .001). For a redistributive carbon tax, we find majority support in Brazil (53%), China (58%), and South Africa (61%). In the USA (47%) and the UK (46%), slightly less than half of the public support this eco-social policy, whereas only 4 in 10 (41%) people in Germany are supporters. For a cap on income and wealth, there is only majority approval in China, where 58% support this policy, followed by Brazil with just below half (49%) and South Africa (46%). In the UK (43%), the USA (41%) and Germany (40%) around 4 in 10 support a cap on income and wealth. Lastly, UBS enjoyed the highest share of public support in each country. Three quarters of participants in Brazil (74%) and South Africa (74%) support this eco-social policy, 6 in 10 people in China (62%), just above half in the USA (53%) and the UK (53%) and 45% in Germany. Interestingly, opposition to each eco-social policy is comparatively low, while the shares of undecided people are in most cases around a third or higher. A mixed MANOVA test, comparing difference in mean values for each policy across the six countries, provides further evidence for significant differences between countries ($F(10,23,914) = 49.93$, $p < .001$, $\eta_p = .02$).

4.2. Explanatory factors for eco-social policy support across countries

To identify broader patterns in eco-social policy support, we examined explanatory factors across the full sample, pooling data from all six countries. Results from the three ordered logit models – each corresponding to one of the policies – are presented in Figure 2, with full regression tables available in the supplementary materials.

Even after controlling for value-based, knowledge-based, and demographic variables, statistically significant cross-country differences persist. Compared to respondents in the USA (the reference category), participants in Brazil (OR = 1.35, $p < .001$) and South Africa (OR = 1.67, $p < .001$) show higher support for UBS, while respondents in Germany are significantly less supportive (OR = 0.74, $p < .001$). Regarding a redistributive carbon tax, participants in China (OR = 1.18, $p = .006$) and South Africa (OR = 1.18, $p = .007$) express higher levels of support than those in the USA, whereas respondents in Germany again exhibit lower support (OR = 0.83, $p = .001$). Differences between the USA and the UK were found to be non-significant in both cases. For income and wealth caps, support is lower than in the USA in Brazil (OR = 0.82, $p = .001$) and South Africa (OR = 0.78, $p < .001$) but higher in China (OR = 1.38, $p < .001$) and the UK (OR = 1.22, $p = .001$). These findings underscore the role of contextual national factors in shaping public preferences for eco-social policies.

Across the pooled data, value-based variables are strongly and consistently associated with policy support. Biospheric values are positively associated with support for all three policies: a one-point increase on the biospheric value scale increases the odds of supporting income and wealth caps (OR = 1.40, $p < .001$), a redistributive carbon tax (OR = 1.45, $p < .001$), and UBS (OR = 1.51, $p < .001$). Individualism, by contrast, is associated with lower support, particularly for income and wealth caps (OR = 0.74, $p < .001$), followed by a redistributive carbon tax (OR = 0.82,

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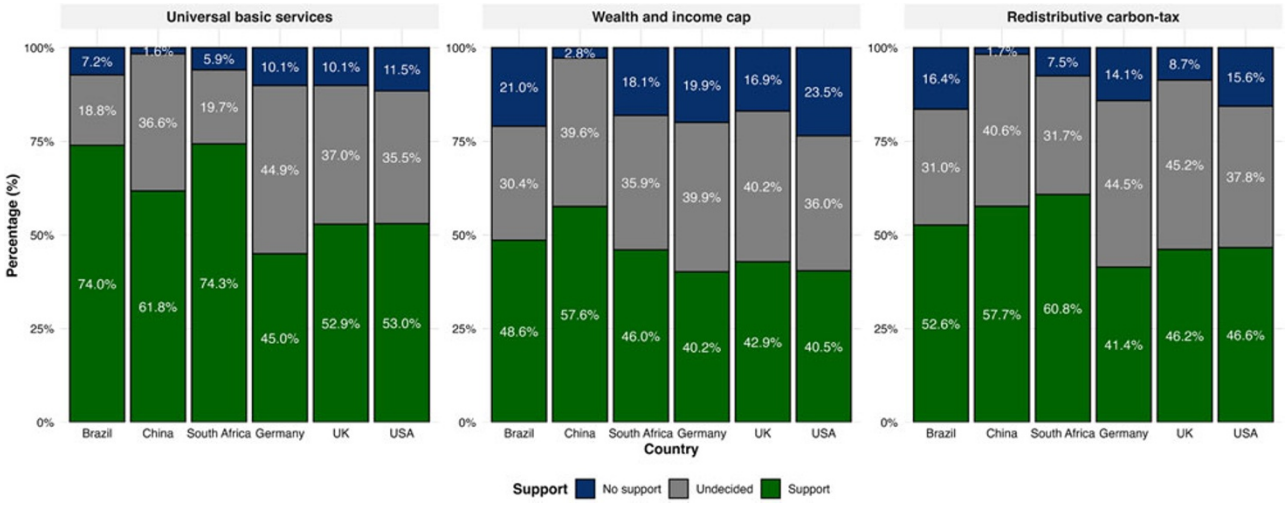

Figure 1. Proportion of individuals per country and eco-social policy and response. Support includes those that 'strongly agree' and 'agree', no support includes those that 'strongly disagree' and 'disagree' and undecided those that stated 'somewhat agree' or 'somewhat disagree'.

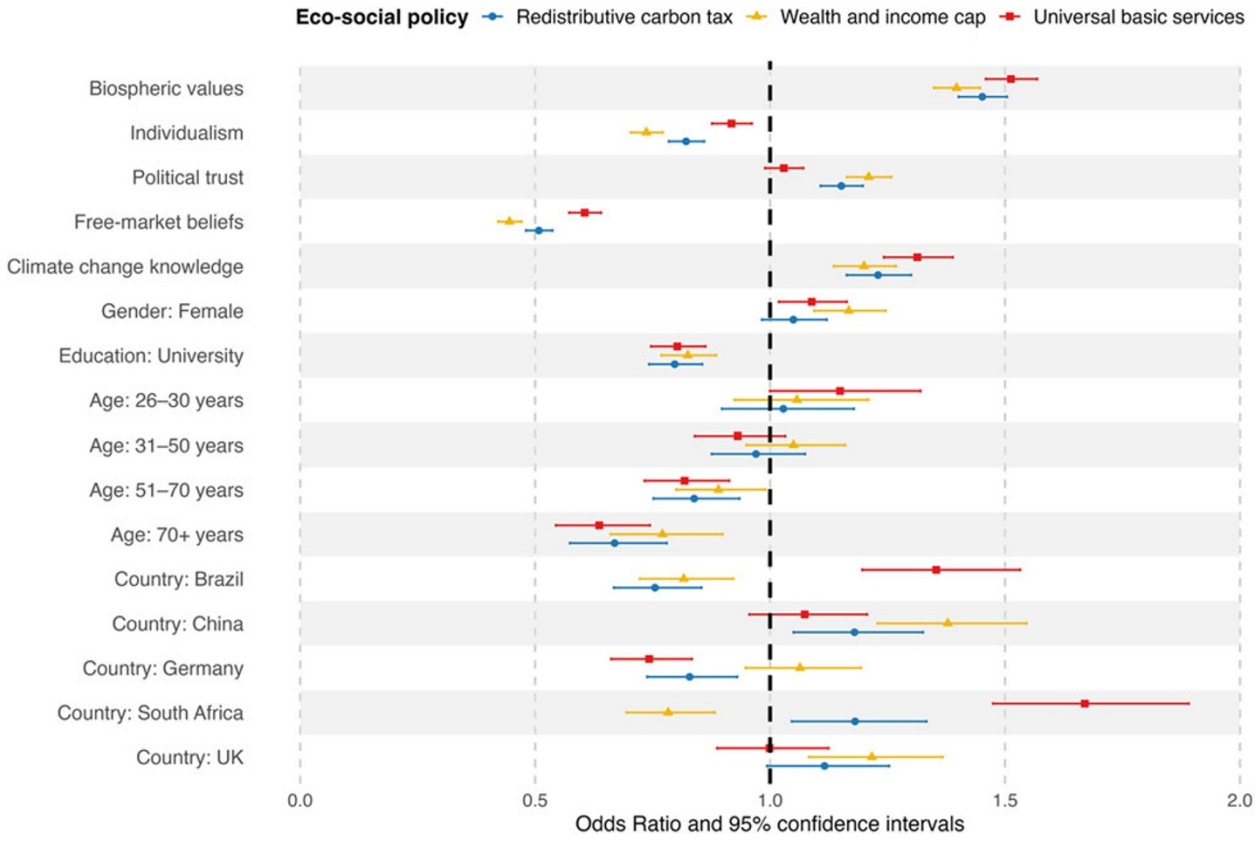

Figure 2. Odds ratios (ORs) with 95% confidence interval from ordered logit regression model based on pooled data from all six countries ($N = 11{,}967$). Dots, triangles, and squares depict estimated ORs with bars showing 95% confidence interval. Blue shows association between independent variables and support for redistribution of carbon taxes, yellow for income and wealth caps, and red for universal basic services. Reference group for gender: female is 'male', for education: university is 'no university degree', reference for the age groups is '18–25 years', and reference group for country is 'USA'.

$p < .001$) and UBS (OR = 0.92, $p < .001$). Political trust is positively associated with support for a redistribution of carbon tax revenues (OR = 1.15, $p < .001$) and income and wealth caps (OR = 1.21, $p < .001$) but is not significant for UBS (OR = 1.03, $p = .154$). Free-market beliefs consistently predict lower support across all three policies: a one-point increase on the free-market scale is associated with a 39% decrease in the odds of supporting UBS (OR = 0.61, $p < .001$), a 49% decrease for a redistributive carbon tax (OR = 0.51, $p < .001$) and a 55% decrease for income and wealth caps (OR = 0.45, $p < .001$).

Findings related to knowledge-based variables reveal some counterintuitive patterns. Self-reported climate change knowledge

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is positively associated with policy support: those reporting higher climate knowledge are more likely to support a redistributive carbon tax (OR = 1.23, $p < .001$), income and wealth caps (OR = 1.20, $p < .001$), and UBS (OR = 1.31, $p < .001$). Conversely, holding a university degree is negatively associated with support: respondents with a degree are less likely to support income and wealth caps (OR = 0.82, $p < .001$), a redistributive carbon tax (OR = 0.80, $p < .001$), and UBS (OR = 0.80, $p < .001$). This apparent contradiction may be partially explained by the weak correlation between education and climate knowledge ($r = .175$, $p < .001$), suggesting that formal education does not necessarily translate into perceived climate understanding. Another possibility may be university graduates' higher incomes and the threat that some of these policies pose to their economic status.

Finally, demographic variables also show significant associations. Women are more likely than men to support income and wealth caps (OR = 1.17, $p < .001$) and UBS (OR = 1.09, $p = .012$), although no significant gender difference is found for a redistributive carbon tax (OR = 1.05, $p = .150$). Age differences are more pronounced: respondents aged 51–70 and those over 70 are significantly less supportive of all three policies compared to respondents aged 18–25. However, no significant differences are observed between the youngest group and those aged 26–50.

To assess differences in the joint explanatory power of values and demographics, we estimated separate logistic regression models for each policy instrument: one including only value-based variables (biospheric values, individualism, free-market beliefs, and political trust), and one including only demographic variables (age, gender, and education). We then compared these models using Akaike information criterion (AIC) and McFadden's pseudo-R^2. A lower AIC indicates better model performance, as it implies less information loss. The value-based models performed substantially better for all three eco-social policies: for the redistributive carbon tax (*AIC_value-based* = 35,641.7; *AIC_demographics* = 37,729.6), for income and wealth caps (*AIC_value-based* = 37,603.4; *AIC_demographics* = 40,275.1), and for UBS (*AIC_value-based* = 34,402.4; *AIC_demographics* = 36,055.5). The same pattern emerged when comparing McFadden's pseudo-R^2, where higher values indicate better model fit. For each policy – the redistributive carbon tax (*pseudo-R^2_value-based* = 0.063; *pseudo-R^2_demographics* = 0.005), income and wealth caps (0.074 vs. 0.005), and UBS (0.056 vs. 0.007) – the pseudo-R^2 of the value-based model was at least eight times higher than that of the demographics-only model. The results underline the importance of value-based over demographic factors in explaining eco-social policy support.

4.3. Explanatory factors for eco-social policy support within countries

As noted in the previous section, biospheric values and free-market beliefs are the strongest and most consistent predictors of eco-social policy support across the six countries in our sample, with the former positively and the latter negatively associated with support for all three policies. However, qui-squared, MANOVA, and ordered logit regression models reveal visible and statistically significant differences in support across countries. To better understand these national-level variations and the factors shaping policy preferences within each context, we conducted country-specific multivariate ordered logit regressions. A summary of key findings is presented here, with full regression tables available in the supplementary materials (Tables 10–16).

We found robust evidence for the relationship between eco-social policy support and biospheric values, free-market beliefs, and individualism, ceteris paribus. With minor exceptions, public support was positively correlated with biospheric values and negatively correlated with free-market beliefs and individualism in all countries. In contrast to such consistent findings, we found that self-reported climate change knowledge was positively associated with eco-social policy support mostly in the three middle-income countries (Brazil, South Africa, and China). While higher education was negatively associated with eco-social policy support in the USA and Germany, we found a positive association in the UK and no association in Brazil, China, and South Africa. The correlations between policy support and demographic variables such as age, gender, and income were less consistent, varying not only by country but also by eco-social policy. The relationship between income and policy support was negative for a redistributive carbon tax in the USA, UK, Germany, and South Africa and for income and wealth caps in the UK, Germany, South Africa, and China.

5. Discussion

We have examined public attitudes towards eco-social policies and various socio-demographic and ideological predictors of attitudes across six diverse countries – Brazil, China, South Africa, USA, UK, and Germany – including the largest emitter from each continent. We find highest support across all countries for UBS, receiving majority support in all countries except Germany. This echoes results for Sweden where two thirds of the population support one element of UBS: free public transport (Lee et al., 2023). This finding also suggests that meeting basic needs and reducing the economic burden is for many people more important than taxing the rich or introducing a carbon tax and redistributing after.

A redistributive carbon tax received majority support in the three middle-income countries but less support among the population in the three high-income countries (41–47%). On the one hand, when compared to previous research on support for a carbon tax using the same dataset (Bretter & Schulz, 2025), these findings demonstrate that a carbon tax in combination with socially targeted revenue recycling enjoys considerably more support among the public compared to a carbon tax on its own. On the other hand, this suggests that a redistributive carbon tax is not sufficient for generating majority support in high-income countries but may need to be combined with revenue recycling for environmental projects (Maestre-Andrés et al., 2021; Mohammadzadeh Valencia et al., 2024).

A cap on income and wealth only received majority support in China, but with large shares of support in the other five countries (40–49%). This level of support is substantially higher than found in studies by Khan et al. (2023) and Lee et al. (2023) in Sweden. One reason for this might be the phrasing of the policy item. Khan et al. (2023) set a numeric, and arguably relatively low target for a cap on yearly incomes of around €150,000 gross and Lee et al. (2023) only state 'a maximum income' but do not specify a numerical cap. Recent research has shown that moving the baseline of taxing the rich changes public support (Kane & Newman, 2023). Our policy item referred to 'excessive income and wealth' and specified the goal to 'reduce emissions from luxury consumption'. Our phrasing and results are in line with those by Trump (2025) who finds that conspicuous consumption by the rich is positively linked to people supporting taxing the rich.

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It is important to point out that large shares of the public in each country were still undecided (19–45%) with relatively little outright opposition to these three eco-social policies (2–24%). This uncertainty may either reflect the unfamiliarity or an actual indifference with regard to these relatively new policies. Either way, this appears to be an opportunity to convince undecided individuals.

In line with Gugushvili and Otto's (2023) theoretical framework, we find that country context matters. People in the three middle-income countries showed significantly higher support across all eco-social policies. UBS in particular was popular, supported by three quarters of the public in Brazil and South Africa. In other words, individuals in countries with more social shortfalls (Fanning et al., 2022) are more supportive of policies that simultaneously address social and ecological issues. Similarly, support for a cap on income and wealth only passed the 50% threshold in China, a country that has witnessed incredible improvements in the standard of living but is characterized by astronomical increases in income and wealth at the top and related income and wealth inequalities (World Inequality Database, 2025). Significant country differences remain even after controlling for value-based, knowledge-based, and demographic factors.

We also find that beliefs, either related to the environment or 'free markets', matter most for public attitudes towards eco-social policies; more so than socio-demographics such as age, gender, education, or income. This is not to say that socio-demographics do not play a role (Emilsson, 2022; Fritz & Koch, 2019; Khan et al., 2023; Otto & Gugushvili, 2020). However, as we have demonstrated, engaging with ideological factors seems to provide a considerably bigger lever to increase support for eco-social policies. Our results are thus aligned with previous research that found more altruistic and biospheric values to be related to stronger support for eco-social policy (Fritz & Eversberg, 2023; Fritz & Koch, 2019; Gugushvili & Otto, 2023; Khan et al., 2023; Otto & Gugushvili, 2020). Yet, our study also crucially extends this finding to three middle-income countries. This strengthens the importance that values and worldviews play, suggesting a robust relationship beyond regional and cultural boundaries.

Moreover, the substantial role that ideologies play in affecting attitudes towards eco-social policies across all countries demonstrates that preference for polices is not necessarily determined by an objective evaluation of evidence, nor by the socio-economic position an individual holds in society, but more so by biases grounded in ideologies. Providing factual information is thus unlikely to be sufficient to further increase public support and may in some instances even further increase ideological divides (Kahan et al., 2009).

Results from the within-country analyses were crucial in identifying explanatory commonalities and differences across countries. Whereas biospheric values, beliefs in the superiority of the 'free market' and individualism show consistent relationships with policy support across countries, the relationship between knowledge-based factors and demographic variables with eco-social policy support are mixed and often context-specific. This implies that not only is eco-social policy support itself contingent on country context (Gugushvili & Otto, 2023) but so are the factors influencing support.

In general, however, strengthening collectivist worldviews and values that highlight the benefits of climate action for society seems to be a key action to enhance public support for eco-social policies across the six countries we examined. Over the past 50 years individualist values and practices have increased around the globe (Santos et al., 2017), and so have neoliberal values related to free-market beliefs (Lawn & Prentince, 2015). While these developments run counter to the values we have identified as beneficial for eco-social policy support, they also show that value change is possible. Belief systems build up early in life (Osberg et al., 2024), so bringing climate change and eco-social policies into school curricula is one crucial step. Identifying factors that influence the initiation and fostering of values towards care for others and nature should thus take more prominence in research on policy support (Osberg et al., 2024).

5.1. Policy implications

Our findings suggest several actionable insights for national governments aiming to advance eco-social policy agendas in diverse national contexts. One of the clearest implications is the strong and consistent support for UBS, particularly in countries with greater unmet social needs. Policymakers should consider expanding or initiating investments in public services such as healthcare, education, housing, and free public transport. However, without any sustainability conditionality, UBS might increase carbon emissions. But through public or collective provisions, UBS can more easily be provided in climate friendly ways, e.g. by supporting investments in renewable energy and public transport infrastructures. In addition, UBS could be offered as vouchers for renewable energy for electricity, energy efficient social housing and electric public transport (Brand-Correa & Steinberger, 2017). When designed in this way, UBS has the potential to minimize or even avoid potential emission increases from improving living conditions at the bottom-end of the income distribution, and when combined with measures that target 'luxury' energy use, aggregate emission savings can be achieved. UBS can serve as a politically viable starting point for integrated approaches that combine social equity and environmental sustainability. In these cases, UBS should be framed not only as social support but also as tools for achieving climate and ecological goals, thus creating a dual rationale that resonates with a wide range of citizens. Here middle-income countries may need more financial support and leeway – debt cuts, lower interest rates, grants instead of loans – to implement UBS.

Carbon pricing is another area where design matters. Our results show that redistributing carbon tax revenues to low- and middle-income households significantly increases public support, especially in middle-income countries. However, in high-income contexts, this redistribution alone may not be enough to secure majority support. Policymakers in these settings might consider combining revenue recycling with visible investments in environmental projects such as renewable energy, green public transport, or public green spaces. Transparent communication about how revenues are used and who benefits is crucial to build trust and legitimacy.

Support for capping income and wealth, although not dominant in all countries, is notably high given the historical sensitivity of such measures. We found that, in comparison to previous survey results, public support is higher when income and wealth caps are framed in terms of reducing emissions from luxury consumption, with a focus on framing particular types of wealth as excessive. This framing highlights the environmental harm caused by excessive wealth and consumption, which can be a compelling rationale for action. In terms of ecological benefit, a cap on income and/or wealth or other measures that target 'luxury' energy use may be crucial to counteract potential emissions increases from a UBS (Büchs, 2021). A redistribution of emissions from over-emitting

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wealthy to low-emitting people in need is key for sustainable welfare. This also demonstrates the importance of eco-social policy packages. Each policy alone may be insufficient for fulfilling all three criteria of sustainable welfare: providing a social floor, creating an upper boundary, and a fair distribution of the costs and benefits. Yet, together they are more likely to be both 'eco' and 'social'.

A particularly important finding is that ideological beliefs consistently play a stronger role in shaping policy support than socio-economic status or demographics. This has major implications for how governments should communicate policies. Rather than relying solely on factual information or appeals to material self-interest, policymakers should engage with the values and worldviews held by different segments of the population. Messaging that connects eco-social policies to ideas of fairness, justice, responsibility, or economical may be more persuasive and less polarizing than messages focused on climate change and the environment.

The presence of a large share of undecided respondents in all countries is another important signal. Many people are not opposed to eco-social policies but remain unfamiliar or uncertain. This offers a strategic opportunity to build support through inclusive dialogue, participatory processes, and clearer policy communication. Public deliberation forums, citizen assemblies, or locally grounded policy experiments could be effective tools to engage these audiences and build legitimacy from the ground up.

Finally, the results point to the need for context-sensitive strategies. While some ideological and value-based trends appear consistent across countries, other influencing factors – such as education, income, or climate knowledge – are highly context-specific. A universal, one-size-fits-all approach is unlikely to work. Instead, governments should tailor their strategies to the political, cultural, and institutional realities of their own societies.

5.2. Limitations and future research

The study has several limitations that should be acknowledged. First, while our analysis suggests a role for both material self-interest and value-based drivers of support for eco-social policies, more control questions would have been necessary to robustly differentiate between these explanations. Although we found only weak to moderate and inconsistent correlations between socio-demographic variables and value orientations across countries (see supplementary materials, Tables 17–23), these patterns explain only a small portion of the variation in support. Similarly, we focused on individual-level ideological and socio-demographic variables. As such, we did not take into account the considerable socio-economic and political differences between the countries. Country-level differences could also be down to the welfare systems in place and the beliefs associated with them. For example, collective levels of support for taxation (Cullen et al., 2021; Sachweh & Eicher, 2023) or redistributive policies could affect support for eco-social policies. All these differences could potentially account for different levels of support for eco-social policies across countries.

Second, the survey design introduces limitations, particularly in the middle-income countries. The online format likely led to an overrepresentation of highly educated and predominantly urban respondents, excluding segments of the population without reliable access to the internet or electricity. As such, our findings may not fully capture the views of more marginalized groups, potentially skewing the results towards those with higher access to resources and digital infrastructure.

Third, in the formulation of eco-social policy options – particularly the cap on income and wealth – we deliberately refrained from specifying a numerical threshold or ceiling. Prior research has shown that the level of such a cap can significantly affect public support (François et al., 2025). Our intention was instead to focus on the underlying objective of curbing luxury consumption arising from excessive income and wealth. However, this more abstract framing may have influenced how respondents interpreted the policy.

Finally, while we measure general support for three key eco-social policies, our design does not capture important dimensions that influence policy preferences, such as perceived fairness, feasibility, or likely impact. Prior work has shown these factors to be important in shaping public attitudes (Bergquist et al., 2022; Poortinga, 2025). Nevertheless, our results are to a large extent robust to omitted variables. Tenfold cross validation has shown that our model predicts the group of supporters accurately in 72–83% of the cases, depending on the eco-social policy under examination (see results in supplementary materials, Table 24).

As such, future research should (1) measure the role of particular institutional, political, and cultural factors at the macro level, (2) account for and experiment with different policy designs for UBS and income/wealth caps, (3) include measures on the understanding and perception of the policies, and (4) combine online surveys with both telephone and in-person surveys to reach poorer households in low- and middle-income countries. Given the urgency of support for climate-mitigating policies and the justice implications for citizens across the globe, more comparative research is much needed.

Supplementary material. The supplementary material for this article can be found at https://doi.org/10.1017/sus.2026.10048.

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