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Public Confidence in Environmental Protection Movements: An Empirical Analysis Using World Values Survey

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ABSTRACT

This study examines public confidence in environmental protection movements using individual-level data from the World Values Survey conducted between 2017 and 2022. Drawing on a sample of 83,808 respondents across 66 countries, the analysis explores how demographic characteristics, socioeconomic position, contextual factors, and subjective well-being shape confidence in environmental organizations. A linear probability model is employed with a binary measure distinguishing between high and low confidence. The results show that confidence is higher among women and rural residents, and declines slightly with age and higher educational attainment. Subjective social class and employment status display modest associations. The strongest and most consistent determinant is happiness, with higher well-being strongly linked to greater confidence in environmental movements. Overall, the findings highlight the importance of both structural conditions and subjective experiences in shaping public trust in environmental organizations.

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INTRODUCTION

Public confidence in environmental protection movements has become a central social condition for addressing climate change, ecological degradation, and long-term sustainability challenges. Environmental organizations act as key intermediaries between citizens and governing institutions by mobilizing collective action, shaping public narratives, and supporting environmental governance (Drews & van den Bergh, 2016). Their effectiveness depends not only on organizational capacity or policy expertise but also on the confidence they command among the public. When citizens view environmental movements as credible and legitimate, they are more willing to support environmental initiatives, comply with regulations, and accept short-term costs for long-term ecological gains. In contrast, weak confidence can erode civic engagement, limit collective action, and undermine environmental governance (Thaker et al., 2019).

Existing research shows that public confidence and support for environmental action are shaped by a complex interaction of values, ideology, trust, and individual characteristics (Fairbrother, 2016). Cross-national evidence demonstrates that environmental values and political orientations play a strong role in shaping beliefs about climate change and environmental policy support, highlighting the importance of deeper normative frameworks in environmental attitudes (Ziegler, 2017). Cooperative norms and civic orientations further reinforce pro-environmental engagement, especially where environmental protection requires coordinated collective action (Owen & Videras, 2006). Demographic differences also matter. Gender-based analyses reveal systematic variation in environmental values, participation, and perceived citizen influence, suggesting that social positioning shapes how environmental movements are viewed (Tien & Huang, 2023). Global evidence further indicates that confidence in environmental movements is often higher in the Global East and South than in advanced industrial economies, challenging narrow post-materialist assumptions about environmental concern (Tausch, 2024).

Institutional trust is another critical factor linking individuals to environmental governance. Empirical studies show that trust in government and perceptions of collective efficacy significantly increase support for climate-related policies, emphasizing the central role of confidence in motivating engagement with environmental action (Thaker et al., 2019). Longitudinal and cross-cultural analyses using World Values Survey data confirm that environmental values vary across societies and are systematically shaped by socioeconomic and demographic conditions (Li et al., 2018). Comparative research further shows that education, age, and urban residence interact with environmental trust to influence public engagement, although these relationships differ across national contexts (Marquart-Pyatt,

2018). Earlier sociological work highlights that civic resources, social integration, and demographic attributes shape practical support for environmental movements beyond general environmental concern alone (Barkan, 2004). At a conceptual level, empirical evidence suggests that environmental values, beliefs, and attitudes are hierarchically structured, with broad worldviews shaping specific attitudes that ultimately influence engagement (Best & Mayerl, 2013).

More recent scholarship has extended these insights by emphasizing ideology, socioeconomic position, and behavior. Studies on pro-environmental policy support show that ideological orientation and personal values independently shape environmental attitudes, indicating that citizens evaluate environmental initiatives through both moral and political lenses (Harring et al., 2017). Comparative evidence also challenges the view that environmental concern is confined to affluent societies, demonstrating that environmental awareness and support are widespread across income levels and regions (Dunlap & York, 2008). Micro-level analyses based on the World Values Survey show that gender, urban residence, marital status, employment status, and subjective social class significantly influence environmental preferences, highlighting the importance of perceived socioeconomic position alongside objective indicators (Shair et al., 2024a; 2024b).

Behavioral engagement further matters, as participation in environmental organizations and pro-environmental activities strengthens support for environmental protection, with confidence in environmental movements reinforcing sustainability-oriented choices (Bano et al., 2024a). Values-based explanations remain influential, as individuals emphasizing quality of life and self-expression are more likely to prioritize environmental protection, although the strength of this relationship varies across income contexts (Bano et al., 2024b). Complementing these perspectives, broader reviews emphasize that trust, values, and social context form the foundation of public support for climate and environmental policies (Drews & van den Bergh, 2016).

Despite these advances, important gaps remain. Much of the literature focuses on environmental attitudes, behaviors, or policy support, while confidence in environmental protection movements is rarely examined as an outcome in its own right. Studies often analyze demographic, socioeconomic, value-based, or behavioral factors in isolation, limiting a unified understanding of how these dimensions jointly shape confidence. Subjective socioeconomic position, particularly subjective social class, remains under-integrated, and well-being factors such as happiness or life satisfaction are frequently treated as peripheral rather than central influences on institutional confidence. Fragmented empirical approaches and varied outcome measures further constrain comparative insights into why confidence in environmental movements varies across individuals and societies.

This study addresses these gaps by examining public confidence in environmental protection movements using World Values Survey microdata. It treats confidence as a central analytical outcome and employs a binary measure distinguishing between high and low confidence to capture meaningful variation in public trust. By integrating demographic characteristics, socioeconomic factors including subjective social class, contextual conditions such as urban-rural residence, and individual well-being, the study offers a unified empirical framework for understanding confidence in environmental organizations. In doing so, it strengthens the empirical basis for understanding how social trust in environmental movements is formed and sustained across diverse social contexts, with direct relevance for Environmental governance and collective action.

METHODOLOGY

Empirical Model

The empirical analysis uses the linear probability model (LPM) to analyse the factors that determine public confidence in environmental protection movements. Given the fact that the dependent variable is binary, the LPM offers a simple framework in which estimated coefficients can be interpreted as changes in the probability of showing high confidence in environmental organizations related to changes in explanatory variables. The baseline empirical specification is as follows:

$$\text{confenv\_bin}_i = \alpha + \beta_1 \,\text{age}_i + \beta_2 \,\text{gender}_i + \beta_3 \,\text{mar3}_i + \beta_4 \,\text{educ3}_i + \beta_5 \,\text{ses5}_i + \beta_6 \,\text{emp3}_i + \beta_7 \,\text{area}_i + \beta_8 \,\text{happy4}_i + \varepsilon_i \qquad (1)$$

where i indexes individuals, α is a constant term, and ε_i is an idiosyncratic error term.

This specification enables the study to measure the partial connection between confidence in environmental organizations and a wide range of individual characteristics, keeping other factors fixed. Demographic, socioeconomic, contextual and well-being covariates are included concurrently to give an integrated picture of the relation between various dimensions of social position and subjective experience and confidence in environmental movements. The definition of variables used in the study is presented in Table 1.

Table 1: Definition and Coding of Study Variables

Variable	Description	Original WVS Coding	Final Coding Used in Analysis
Outcome Variable			
Confidence in Environmental Organizations	Respondent's confidence in environmental protection movement / environmental organizations	1 = A great deal; 2 = Quite a lot; 3 = Not very much; 4 = None at all; −1/−2/−4/−5 = Missing/DK/Not asked	Recoded to binary:1 = High confidence (A great deal + Quite a lot) 0 = Low confidence (Not very much + None at all) Missing values excluded
Demographic Covariates			
Age	Age in completed years	Continuous 16–103	Continuous
Gender	Biological sex of respondent	1 = Male, 2 = Female	Dummy: 0 = Male; 1 = Female
Marital Status	Current marital status	Married; Living together; Divorced; Separated; Widowed; Single	3 Categories:1 = Never married2 = Currently married (married/living together)3 = Formerly married (divorced/separated/widowed)
Socioeconomic Covariates			
Education Level	Highest completed level of education	Multiple original categories	3 Categories: Lower, Middle, Higher
Subjective Social Class	Self-identified social class	Upper, Upper middle, Lower middle, Working, Lower class	5 Categories (unchanged)
Employment Status	Labour market position	Detailed occupational responses	3 Categories: Employed / Self-employed, out of labour force, Unemployed
Contextual Covariate			
Area of Residence	Urban–rural status	0 = Rural; 1 = Urban	Binary: 0 = Rural, 1 = Urban
Well-being Covariate			
Happiness Level	Self-reported happiness	Very happy; Quite happy; Not very happy; Not at all happy	4 Categories (unchanged)

Data source

This study is based on data from the World Values Survey (WVS) Wave 7, which was conducted in the period 2017-2022. The World Values Survey is a large-scale, cross-national research initiative that aims to capture people's values, beliefs, attitudes and perceptions in a range of different social, economic and cultural contexts. It is popular in social science research thanks to its standardised questionnaire, rigorous sampling design and widespread international coverage.

The analytical sample is based on 83,808 individual respondents from 66 countries, which includes both developed and developing economies. The survey uses nationally representative samples of each country, using stratified multistage sampling to ensure adequate representation of the population, by gender, age and geographic location. This broad coverage makes it possible to gain meaningful cross-country and within-country variation in social attitudes and institutional confidence.

RESULTS AND DISCUSSION

Descriptive statistics of outcome and key variables

Table 2 provides a clear picture of who is in the sample and how confidence in environmental organizations are is distributed. The result variable indicates that 59.1% of the respondents have a high degree of confidence in environmental organizations and 40.9% have low degrees of confidence in environmental organizations (N = 90,776).

This split is important because it means that confidence is common, as a whole, compared to skepticism, but there is a sizeable minority who express low confidence, leaving meaningful variation to explain in the regression analysis.

The sample is broadly mixed in terms of age. The mean age is 43.18 years (SD = 16.58) and the age range of the respondents was between 16 and 103 years (N = 96,709). This wide spread implies high life-cycle diversity in the data which is important because environmental confidence is plausibly subject to age-related variation due to differences in political socialization, exposure to environmental risks or trust in institutions over time.

Gender composition is also balanced, but slightly skewed toward women. Females represent 52.6% and males represent 47.4% of the sample (N=97,125). The standard deviations around 0.50 indicate the expected dispersion for binary indicators, and the roughly equal split makes sure that gender comparisons are not due to unequal groups.

Marital status is dominated by currently married. About 63.6% are currently married, 24.1% have never married and 12.3% are formerly married (divorced, separated or widowed) (N = 96,631.) This pattern is consistent with normal adult population structures and it does contain sufficient variation to determine whether family status and life circumstances are related to confidence in environmental movements.

The distribution of education is fairly equal among the three categories. This can be broken down into lower education (31.7%), middle education (34.9%) and higher education (33.4%) (n = 96,149). The close shares are useful from an analytical point of view as they minimises the risk that one group dominates the comparison, and it is possible to interpret more clearly whether educational attainment is linked to higher confidence.

Subjective social class is more clustered. Only 2.0% consider themselves upper class, while 21.2% say they are upper middle class, 38.9% say they are lower middle class, 26.4% say they are working class and 11.5% say they are lower class (N = 91,673). The largest group is the lower middle class, and is common for self-placement questions where respondents stay away from extremes. At the same time, the existence of distinct shares in all five categories is valuable because it permits the study to test whether there is a difference between confidences as a result of perceived social position not just due to objective indicators.

Employment status shows that most of the respondents are economically active, but a large number are out of the labour market. 59.4% of them are employed or self-employed, 32.9% are out of labour force and 7.7% are unemployed (N= 95,987). The relatively small share of unemployed is still a substantial pool of people to study whether economic insecurity is associated with lower confidence.

The distribution of the sample in terms of the context shows a strongly urban sample. 67.8% live in urban areas and 32.2% live in rural areas (N = 97,183). This is important as access to environmental organizations, visibility of environmental issues and environmental messaging can be quite different in urban or rural settings, and this could influence confidence.

Finally, the distribution of happiness indicates that the majority of the respondents are reporting positive well-being. 31.2% are very happy and 54.4% are quite happy, that is, 85.6% are in the "happy" categories, while 12.2% are not very happy and 2.2% are not at all happy (N = 96,569). This concentration at the positive end is typical in subjective well-being data and supports the idea that well-being may be an important lens through which people evaluate institutions and movements. Overall, these descriptive patterns confirm that the sample is diverse across key social dimensions and that the outcome variable has substantial variation, making it well suited for empirical modeling.

Table 2: Descriptive Statistics of Key Study Variables

Variable	N	Mean / %	SD	Min	Max
Confidence in environmental organizations					
Low confidence (0)	90,776	0.409	0.492	0	1
High confidence (1)	90,776	0.591	0.492	0	1
Age (years)	96,709	43.178	16.583	16	103
Gender					
Male	97,125	0.474	0.499	0	1
Female	97,125	0.526	0.499	0	1
Marital status					
Never married	96,631	0.241	0.427	0	1
Currently married	96,631	0.636	0.481	0	1

Formerly married	96,631	0.123	0.329	0	1
Education level					
Lower	96,149	0.317	0.465	0	1
Middle	96,149	0.349	0.477	0	1
Higher	96,149	0.334	0.472	0	1
Subjective social class					
Upper class	91,673	0.020	0.140	0	1
Upper middle	91,673	0.212	0.409	0	1
Lower middle	91,673	0.389	0.487	0	1
Working class	91,673	0.264	0.441	0	1
Lower class	91,673	0.115	0.319	0	1
Employment status					
Employed/self-employed	95,987	0.594	0.491	0	1
Out of labour force	95,987	0.329	0.470	0	1
Unemployed	95,987	0.077	0.267	0	1
Area of residence					
Rural	97,183	0.322	0.467	0	1
Urban	97,183	0.678	0.467	0	1
Happiness					
Very happy	96,569	0.312	0.463	0	1
Quite happy	96,569	0.544	0.498	0	1
Not very happy	96,569	0.122	0.327	0	1
Not at all happy	96,569	0.022	0.146	0	1

Cross-tabulation of Confidence in Environmental Organization with Covariates

Table 2 provides a useful first look at how confidence in environmental organizations differs across major sociodemographic groups. Overall, the sample shows 59.1% high confidence and 40.9% low confidence (N ≈ 90,000). The chi-square tests indicate whether the differences across categories are statistically meaningful. In most cases, the p-values are below 0.001, which means the observed gaps are unlikely to be due to chance alone.

Marital status shows a modest but clear pattern (χ^2 (2) =26.02, p<0.001). High confidence is 59.87% among the never married (N=22,083) and 59.19% among the currently married (N=57,388). In contrast, the formerly married group is lowest in high confidence (56.96%; or N=10,833) and highest in low confidence (43.04%). The gap is not huge, but the results suggest that people who are divorced, separated or widowed may be a little more skeptical about environmental organizations.

Education displays a stronger variation (χ^2 (2) =105.07, p<0.001). Respondents who are less educated express the highest high confidence level of 61.08% (N=27,726) and those who are more educated express the lowest of 57.00% (N=31,582). The group belonging to higher education stands in between with 59.53% high confidence (N=30,604). This is an interesting pattern because is not strictly increasing with education. It implies that education might be in some checks and balances way related to confidence, perhaps in terms of expectation or skepticism or exposure to public debates.

Subjective social class also shows statistically significant differences (χ^2 (4) =22.47, p<0.001), although the gradient is relatively mild. High confidence is 60.22% in the upper class (N=1,767) and 59.89% in the upper middle class (N=18,636). It declines gradually to 58.98% for the lower middle class (N=33,604), 58.30% for the working class (N=22,328), and 57.28% for the lower class (N=9,595). In short, confidence tends to be slightly higher among those who place themselves higher in the social structure, but the differences are not dramatic.

Employment status shows the smallest differences, but they are still statistically meaningful (χ^2 (2) =7.97, p=0.019). High confidence is 59.47% among the employed/self-employed (N=53,978), compared to 58.54% among those out

of the labour force (N=28,842) and 58.44% among the unemployed (N=6,918). The pattern suggests that labour market security may be linked to confidence, but only weakly at this descriptive stage.

Area of residence shows a clearer split (χ^2 (1) =94.23, p<0.001). Rural residents report 61.39% high confidence (N=28,800), while urban residents report 57.99% high confidence (N=61,947). That means low confidence is noticeably higher in urban areas (42.01%) than in rural areas (38.61%). This is a meaningful difference and may reflect differences in lived environmental experiences, institutional trust, or exposure to environmental activism and criticism.

The strongest and most striking differences appear for happiness (χ^2 (3) =755.61, p<0.001). Among those who are very happy, high confidence is 62.92% (N=28,504). It remains fairly high for the quite happy at 59.58% (N=49,024). However, confidence drops sharply among those reporting lower well-being: the not very happy group is almost evenly split (49.54% high vs 50.46% low, N=10,877), and the not at all happy group shows the lowest confidence with only 44.61% high and 55.39% low (N=1,919). This suggests that subjective well-being is strongly related to how people evaluate and trust environmental organizations, at least descriptively.

Overall, the cross-tabulations show that confidence varies across several dimensions, but the largest gaps are tied to happiness and urban–rural residence, while differences by employment and subjective class are smaller but still statistically significant. These bivariate patterns are informative, but they do not account for overlaps between factors (for example, education and class, or residence and employment). That is why the multivariable regression analysis is needed; to isolate the independent association of each factor with confidence while holding other characteristics constant.

Table 2: Cross-tabulation of Sociodemographic Factors and Confidence in Environmental Organizations

Variable & Categories	Low Confidence (%)	High Confidence (%)	N	Chi-square (df), p-value
Marital Status				
Never married	40.13	59.87	22,083	$\chi^2(2)=26.02$, p<0.001
Currently married	40.81	59.19	57,388	
Formerly married	43.04	56.96	10,833	
Education Level				
Lower	38.92	61.08	27,726	$\chi^2(2)=105.07$, p<0.001
Middle	43.00	57.00	31,582	
Higher	40.47	59.53	30,604	
Subjective Social Class				
Upper class	39.78	60.22	1,767	$\chi^2(4)=22.47$, p<0.001
Upper middle	40.11	59.89	18,636	
Lower middle	41.02	58.98	33,604	
Working class	41.70	58.30	22,328	
Lower class	42.72	57.28	9,595	
Employment Status				
Employed / Self-employed	40.53	59.47	53,978	$\chi^2(2)=7.97$, p=0.019
Out of labour force	41.46	58.54	28,842	
Unemployed	41.56	58.44	6,918	
Area of Residence				
Rural	38.61	61.39	28,800	$\chi^2(1)=94.23$, p<0.001
Urban	42.01	57.99	61,947	
Happiness				
Very happy	37.08	62.92	28,504	$\chi^2(3)=755.61$, p<0.001
Quite happy	40.42	59.58	49,024	

Not very happy	50.46	49.54	10,877
Not at all happy	55.39	44.61	1,919
Overall Total	40.9	59.1	90,000

Empirical results

Table 3 reports results from three progressively richer linear probability models. Model 1 includes only core demographic characteristics to establish baseline associations with confidence in environmental organizations. Model 2 extends this framework by adding socioeconomic position, employment status, and area of residence, allowing the analysis to assess whether demographic effects persist once structural conditions are taken into account. Model 3 further incorporates happiness to examine whether subjective well-being explains additional variation in confidence and alters the effects of earlier covariates. This stepwise approach helps separate demographic, socioeconomic, contextual, and well-being influences, and clarifies how confidence is shaped by overlapping social factors rather than any single dimension.

Age has a small but significant negative relationship with confidence in all three models. The coefficient is fairly stable at -0.001 and is statistically significant throughout. This means that, on average, being one year older is linked to a 0.1 percentage point decrease in one's confidence in environmental organizations. Although the magnitude is small, the consistent pattern is indicative of a slow decrease in confidence throughout life, perhaps indicating the effects of cohort differences in institutional trust or evolving expectations of collective action.

Gender shows a good and stable pattern. Women are much more likely than men to say they have high confidence in environmental organizations. In Model 1, the probability of high confidence is 2.4 percentage points higher for females. This effect is unchanged for Model 2 and only decreases slightly to 2.2 percentage points in Model 3 after controlling for happiness. The robustness of this link implies that gender-related differences in environmental concern or trust are independent of socioeconomic status and well-being.

Marital status has more complex effects that vary across models. Relative to the currently married, never married are not significantly different in Models 1 and 2. In Model 3, however, the coefficient is positive and significant at 0.011, which is a higher level of confidence once happiness is controlled for. Formerly married people have lower confidence in Models 1 and 2 with declines of 1.7 and 1.4 percentage points respectively. This effect is lost in Model 3, and therefore it appears that the lower well-being among this group partially accounts for their initial confidence gap.

Education has a significant negative relationship with confidence after it enters the model. Compared to those with lower education, people with middle education are around 4.8 to 4.9 percentage points less likely to say that they are very confident, and those with higher education are around 2.9 to 3.1 percentage points less likely. These effects are large and highly significant in both Models 2 and 3. The pattern is that higher educational attainment may be associated with greater skepticism or more critical evaluations about environmental organizations.

Subjective social class has a positive gradient with the lower class, especially in Model 2. Individuals identifying as upper class, upper middle, lower middle and working class are all higher in confidence with effects ranging from 1.9 to 4.3 percentage points. After happiness has been added in Model 3, these effects become weaker, noticeably. Only the upper middle class and lower middle class remain significant, and with smaller magnitudes. This reduction indicates that part of the class-based confidence gap operates through differences in subjective well-being.

Employment status also matters, though the effects are modest. Being out of labour force is related to a 1.0 percentage point lower probability of being highly confident in both Models 2 and 3. Unemployment has a negative, but statistically insignificant impact in Model 2, which is completely gone in Model 3. These results suggest that it is labour market detachment and not unemployment per se which is more consistently associated with lower confidence.

Area of residence has a robust and strong association. Urbanites are much less likely to say they are highly confident than are ruralites. The coefficient is -0.035 in Model 2 and -0.031 in Model 3, which implies a decrease of about three percentage points. The robustness of this effect is encouraging in the way that urban-urban differences in confidence are not accounted for by socioeconomic status or happiness and may reflect effects of institutions e.g. institutional exposure or public discourse.

Happiness emerges as the strongest predictor in Model 3. Relative to those who are not at all happy, very happy individuals are 18.0 percentage points more likely to express high confidence, while quite happy individuals are 15.0 percentage points more likely. Even those who are not very happy show a positive and significant effect of 4.9 percentage points. The large size of these coefficients explains the increase in R-squared from 0.005 in Model 2 to 0.013 in Model 3 and highlights subjective well-being as a central factor shaping confidence in environmental organizations.

Table 3: Determinants of Confidence in Environmental Organizations

VARIABLES	(1)	(2)	(3)
	Model 1	Model 2	Model 3
Age	-0.001***	-0.001***	-0.001***
	(0.000)	(0.000)	(0.000)
Female (=Yes)	0.024***	0.024***	0.022***
	(0.003)	(0.004)	(0.004)
Marital status: Currently married (base)			
Never married	-0.004	0.005	0.011**
	(0.004)	(0.005)	(0.005)
Formerly married	-0.017***	-0.014**	-0.004
	(0.005)	(0.006)	(0.006)
Education: Lower (base)			
Middle		-0.048***	-0.049***
		(0.004)	(0.004)
Higher		-0.029***	-0.031***
		(0.005)	(0.005)
Socio-economic status: Lower class (base)			
Upper class		0.039***	0.014
		(0.013)	(0.013)
Upper middle		0.043***	0.022***
		(0.007)	(0.007)
Lower middle		0.028***	0.014**
		(0.006)	(0.006)
Working class		0.019***	0.008
		(0.006)	(0.006)
Employment status: Employed (reference)			
Out of labour force		-0.010**	-0.010**
		(0.004)	(0.004)
Unemployed		-0.010	-0.002
		(0.007)	(0.007)
Urban		-0.035***	-0.031***
		(0.004)	(0.004)
Happiness: Not at all happy (base)			
Very happy			0.180***
			(0.012)
Quite happy			0.150***
			(0.012)
Not very happy			0.049***
			(0.013)

Constant	0.616***	0.640***	0.502***
	(0.006)	(0.008)	(0.014)
Observations	89,831	84,136	83,808
R-squared	0.001	0.005	0.013

Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 4 is presented to complement the stepwise results reported in Table 3 and to provide a single, fully specified view of the empirical relationships. While Table 3 emphasizes how the estimated effects evolve across progressively richer model specifications. While Table 4 reports the complete OLS estimates from the final model in a consolidated format. This presentation allows readers to directly assess coefficient magnitudes, standard errors, statistical significance, and confidence intervals in one place, without the need to track changes across multiple columns. It also facilitates clearer interpretation of effect sizes and precision, particularly for policy-relevant variables such as education, social class, urban residence, and happiness. By reporting the full model separately, Table 4 improves transparency and robustness of interpretation, while avoiding redundancy and ensuring that the core findings are presented in a clear and accessible manner.

Table 4: Determinants of Confidence in Environmental Organizations (OLS Regression)

Variable	Coef.	Std. Error	t-value	p-value	95% Confidence Interval
Age	−0.001	0.000	−5.880	0.000	−0.001 to −0.000
Female (ref: Male)	0.022	0.004	6.350	0.000	0.016 to 0.029
Marital status (ref: Currently married)					
Never married	0.011	0.005	2.340	0.020	0.002 to 0.020
Formerly married	−0.004	0.006	−0.760	0.446	−0.015 to 0.007
Education (ref: Lower)					
Middle	−0.049	0.004	−11.400	0.000	−0.057 to −0.041
Higher	−0.031	0.005	−6.710	0.000	−0.040 to −0.022
Subjective social class (ref: Lower class)					
Upper class	0.014	0.013	1.040	0.299	−0.012 to 0.039
Upper middle	0.022	0.007	3.310	0.001	0.009 to 0.035
Lower middle	0.014	0.006	2.320	0.020	0.002 to 0.025
Working class	0.008	0.006	1.270	0.204	−0.004 to 0.020
Employment status (ref: Employed)					
Out of labour force	−0.010	0.004	−2.550	0.011	−0.018 to −0.002
Unemployed	−0.002	0.007	−0.250	0.802	−0.015 to 0.011
Urban (ref: Rural)	−0.031	0.004	−8.140	0.000	−0.038 to −0.023
Happiness (ref: Not at all happy)					
Very happy	0.180	0.012	15.020	0.000	0.157 to 0.204
Quite happy	0.150	0.012	12.690	0.000	0.127 to 0.173
Not very happy	0.049	0.013	3.880	0.000	0.024 to 0.073
Constant	0.502	0.014	36.140	0.000	0.475 to 0.530
Observations: 83,808 R^2: 0.013					
Adjusted R^2: 0.013					
Root MSE: 0.489 F(16, 83,791) = 67.67, p < 0.001					

Discussion

Figure 1 highlights clear differences in how individual characteristics relate to confidence in environmental organizations. Age is weakly negative, suggesting a gradual decline in confidence with age, while women show higher confidence than men. Education is consistently negative, with middle and higher education associated with lower confidence. Urban residents also display lower confidence compared to rural residents. Subjective social class shows modest positive effects, especially for the middle classes, though estimates are relatively small. The most pronounced results relate to happiness. Very happy and quite happy individuals exhibit substantially higher confidence, with effects far larger than any other covariate. Overall, the figure shows that well-being is the strongest correlate of confidence, while demographic and socioeconomic factors play secondary roles.

The results show a small but consistent decline in confidence in environmental organizations as age increases. Although the effect size is modest, its stability across models suggests a meaningful life-cycle pattern. Younger individuals may be more receptive to environmental movements due to greater exposure to climate discourse, education, and activism through media and social networks. Older individuals, in contrast, may hold more cautious views shaped by past institutional experiences or lower expectations from collective movements. The finding does not imply disengagement among older groups, but it does suggest that confidence in environmental organizations may weaken gradually over time.

Women display significantly higher confidence in environmental organizations than men, and this pattern remains robust across all specifications. This finding aligns with the idea that women tend to express stronger concern for collective well-being and social issues, including environmental protection. The persistence of the gender effect after controlling for socioeconomic status and happiness indicates that it is not simply driven by material conditions or well-being. Instead, it likely reflects deeper differences in values, social roles, and trust orientations. Gender therefore emerges as a stable and independent correlate of confidence in environmental movements.

Marital status shows nuanced associations with confidence. Formerly married individuals initially exhibit lower confidence, but this effect disappears once happiness is included in the model. This suggests that reduced confidence among this group may be linked to lower well-being rather than marital status itself. Never married individuals show slightly higher confidence once well-being is controlled for, indicating that they may hold more optimistic views toward collective action when personal satisfaction is taken into account. Overall, marital status matters indirectly, mainly through its connection with subjective well-being.

Education is negatively associated with confidence in environmental organizations, particularly for those with middle and higher education. This pattern suggests that more educated individuals may adopt a more critical or questioning stance toward environmental organizations. Higher education may increase awareness of institutional limitations, political constraints, or inconsistencies between environmental rhetoric and outcomes. Rather than reflecting opposition to environmental goals, lower confidence among the educated may indicate higher expectations and greater scrutiny. This finding highlights that confidence does not always move in parallel with environmental awareness or knowledge.

Subjective social class shows a positive but moderate association with confidence, especially among upper middle and lower middle groups. Individuals who perceive themselves as better positioned socially may feel more empowered and optimistic about collective efforts, including environmental movements. However, the weakening of class effects after accounting for happiness suggests that part of this association operates through well-being. Social class still matters, but its influence on confidence appears to be partly emotional and perceptual rather than purely structural.

Employment status has limited explanatory power, though being out of the labour force is associated with slightly lower confidence. This group may face economic or social insecurity that reduces trust in collective institutions. Unemployment, however, does not show a robust independent effect once other factors are controlled for. These results suggest that labour market attachment matters less than broader perceptions of stability and well-being. Confidence in environmental organizations is therefore not strongly driven by employment conditions alone.

Urban residents consistently show lower confidence in environmental organizations than rural residents. This difference remains even after accounting for socioeconomic characteristics and happiness. Urban populations may be more exposed to political debate, media criticism, or visible environmental policy failures, which can foster skepticism. Rural residents, in contrast, may perceive environmental organizations as more relevant to local livelihoods or environmental protection. The finding points to important contextual differences in how environmental movements are perceived across space.

Happiness emerges as the strongest determinant of confidence in environmental organizations. Individuals who are very or quite happy are substantially more likely to express high confidence, while those with low happiness show markedly lower confidence. This strong gradient suggests that well-being shapes how people evaluate institutions and collective movements. Happier individuals may adopt a more trusting and forward-looking perspective, making

them more receptive to environmental initiatives. The results underline the importance of subjective well-being as a central, yet often overlooked, factor in understanding public confidence in environmental organizations.

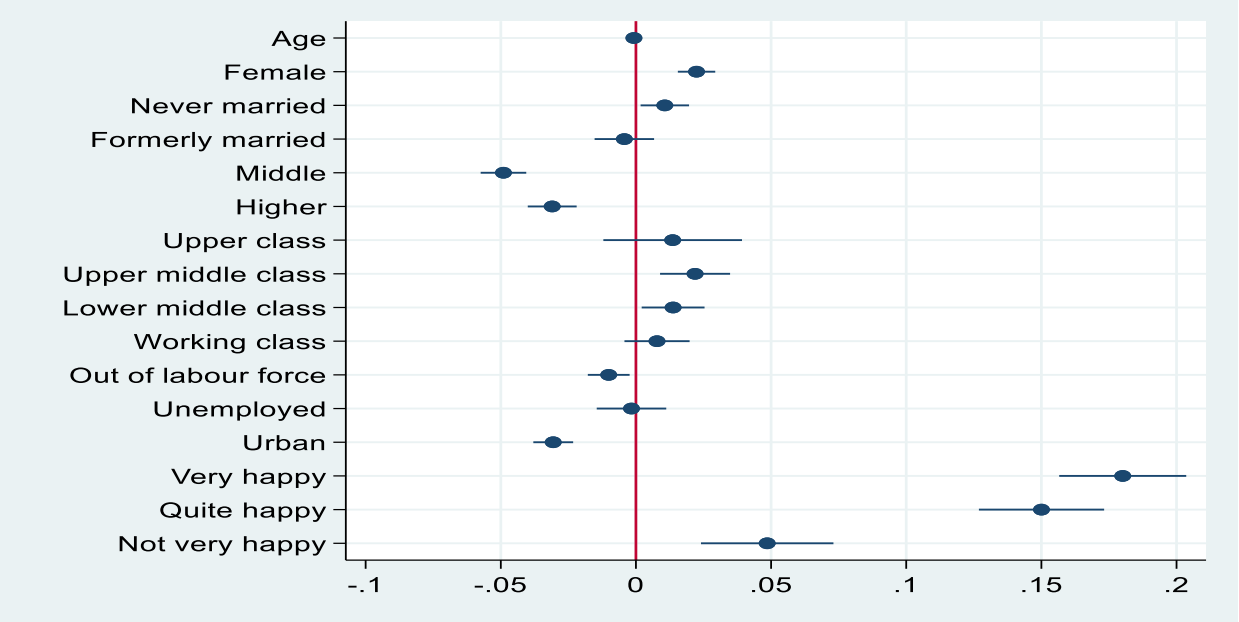

Figure 1: Coefficient plot of the baseline regression model

CONCLUSIONS

This study examined public confidence in environmental protection movements using individual-level data from the World Values Survey. The results show that confidence varies systematically across social groups rather than being uniformly distributed. Age is associated with a small decline in confidence, while women consistently report higher confidence than men. Education is negatively related to confidence, suggesting more critical evaluations among the highly educated. Differences by social class, employment status, and area of residence further indicate that social position and context shape how environmental organizations are perceived, though these effects are generally moderate in size. The most prominent finding concerns happiness. Individuals with higher subjective well-being are substantially more likely to express confidence in environmental organizations, even after accounting for demographic and socioeconomic factors. This highlights well-being as a central, yet often overlooked, foundation of institutional trust. By treating confidence as a key outcome and integrating structural and subjective factors, the study offers a clearer understanding of the social roots of environmental trust and provides a useful basis for future research on environmental governance and public engagement.

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