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Who Prioritizes the Environment within the World System? A Cross-National Analysis of Environmental Perceptions Using World Values Survey Data

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Abstract

Environmental protection and economic growth are central to contemporary academic debate. Existing literature has focused primarily on how individual-level characteristics such as gender, education, social class, material status, and religious values influence environmental priorities; however, comparative research on how a structural position in the world-system shapes these relationships remains limited. Grounded in this concern, this study examines how environmental attitudes vary by affiliation with world-system positions. This study uses data from the World Values Survey (Wave 7) to analyze the social bases of prioritizing environmental protection over economic growth in the core, semi-periphery, and periphery. The results show that while women overall prioritize environmental protection more than men, this gender gap is not uniform across world-system positions. Higher education is associated with greater support for environmental protection, whereas material deprivation, lower social class, and greater religious commitment are associated with relatively lower support, which varies by world-system positions of individuals. The study thus contributes to environmental sociological discourse by analyzing the connection between micro-level environmental attitudes and macro-level global political economy.

1. Introduction

The current forms of civilization bear testimony of heightened environmental crises, ecological destruction, climate change, and unsustainable development (Gare, 2017). Thus, the environment, climate change, and sustainability have emerged as core of contemporary global development discourse and global communities emphasizes on the imperative of constructing sustainable and equitable societies (Scoville and McCumber, 2023; Brulle and Dunlap, 2015). While is it necessary to have wider agreements on building sustainable societies, nevertheless, there are some contradicting debates on these crucial grounds at this stage of civilization (Bell, 2017). These debates are environmental sustainability (protection) over economic growth, or vis-à-vis (Gugushvili, 2021).

How does the perception over economic growth shape over economic growth? Current literatures demonstrated a lot of determinant facts on people's perceptions on environmental protection. Bastida (2023) demonstrated that in China, the USA and Germany, level of education significantly affects the environmental attitudes over economic growth. When people have more education, they tend to focus more environmental protection than economic growth. Similarly, Cabalu et al. (2026) identified education is significantly associated determining environmental perception. They also demonstrated that gender, age groups, religious believes, political viewpoints are associated with people's perceptions towards environmental protection over economic growth (Cabalu et al. 2026). Additionally, Post and Meng (2017) displayed that education plays a significant role in shaping people's environmental values and eco-friendly behaviors. According to the research findings, highly educated and economically secure individuals prioritize environmental protection over economic growth. At the same time, the study indicates that national economic and environmental realities also influence people's environmental perspectives.

The discussions on environmental perception over economic growth in the current academic scholarship can be categorized into five analytical frameworks. A group of scholars discuss established that perception of environmental protection varies socio-economic status, such as level of education, social class, incomes, religious positions etc. (see Boca and Saraçlı, 2019; Cabalu et al., 2026; Li et al., 2018; Du et al., 2022; Sulemana, et al., 2016). Second group of scholars demonstrated how gender is associated with environmental protecting perceptions (see Xia and Li, 2023; Peijari, 2020; Momsen, 2000; Echavarren, 2023). Thirdly, cross-national studies utilizing data from various countries have demonstrated that the level of economic development is associated with the formation of environmental perceptions (see Inglehart, 1995, 1997; Dunlap and Mertig, 1996; Dunlap and York, 2008; Drews et al., 2018). A fourth group of researchers has analyzed environmental perception in light of cultural frameworks. These

studies have demonstrated that environmental concepts, risk perception, and eco-friendly behaviors are shaped by cultural values, socialization, and mental frameworks (see Croll and Parkin,1992; Milfont and Schultz, 2016). Final group of academic scholarship demonstrated that how Global North and Global South shaped environmental perception over economic growth. However, However, these explanations generally assume that people's environmental attitudes are primarily the result of personal characteristics and cultural values. Consequently, the fact that an individual's position is also determined by a broader global political-economic framework has received relatively little attention.

World-System Theory provides an important analytical framework for overcoming this limitation. According to Wallerstein (1974, 2004), the modern world should be understood not as a collection of isolated states, but as a unified capitalist world-economy. This world-economy is founded upon a geographical division of labor, through which production, capital, technology, political power, and economic benefits are distributed unequally. It is this unequal structure that arranges states into three categories: Core, Semi-periphery, and Periphery. Consequently, development and underdevelopment are not the result of a country's internal characteristics, but rather the outcome of its structural position within the global capitalist system.

Chirot and Hall (1982) demonstrated that world-systems theory offers an alternative to the linear model of development found in modernization theory. While modernization theory assumes that all societies progress along the same developmental path, world-systems theory argues that the prosperity of the core and the underdevelopment of the periphery are mutually generated within the same global structure.

This theory, subsequently, gained new dimensions in environmental sociology. Moore (2003) argues that the modern world-system is essentially an ecological world-system, wherein the expansion of capitalism has restructured nature, agriculture, resource extraction, and environmental relations. According to him, the distinctions between the Core, Semi-periphery, and Periphery are not merely economic; rather, they reflect differing environmental realities, patterns of resource use, and environmental risks. Similarly, Jorgenson and Givens have demonstrated that environmental benefits and burdens are distributed unequally through the international division of labor, global capital flows, and "ecologically unequal exchange." As a result, the environmental experiences, environmental risks, and development priorities of populations living in different world-system locations are not the same.

However, despite this ecological extension of world-systems theory, most existing literature has focused on explaining environmental outcomes—such as carbon emissions, deforestation, resource extraction, environmental degradation, or global environmental inequality (Moore, 2003; Jorgenson & Givens). On the contrary, studies on environmental perceptions, as mentioned above, have primarily relied on individual-level explanations such as education, gender, income, religious beliefs, and post-materialist values. Although a limited number of studies have attempted to analyze differences in environmental concerns across core, semi-periphery, and periphery nations, theoretical and empirical discourse remains very limited regarding how a nation's structural position within the world-system influences individual environmental perceptions—and, specifically, how this structural position conditions gender-based environmental perspectives.

Therefore, this study asks: “How are perceptions of environmental protection over economic growth shaped by the gender within world system position, including core, semi-periphery and periphery? How are the material deprivation, such food security; income; access to health care, and shelter associated with environmental protection perception? To answer to these questions, in this paper I utilized World Values Survey (Wave7) data, which was conducted between 2017 and 2022 among 89000 respondents from 66 countries. From the lists of variables, I chose my

dependent variable and independents variable according form the dataset (see the methodology section for more details) and analyzed them using the OLS regression analysis.

The study argues that the attitudes towards prioritizing environmental protection is merely an isolated choice; it is, somewhat, shaped by socio-ecological reality within their position in world system. The study emphasizes including context-specific variations in the meanings and impacts of individual-level characteristics in the analysis.

Hypothesis

According to world-system theory, the positions of states within the global political-economic structure shape their development priorities, access to resources, economic security, and environmental realities in distinct ways. Consequently, the priority assigned to environmental protection versus economic growth is unlikely to be uniform across different world-system positions. Similarly, if a world-system position shapes the social and economic realities of individuals, the relationship between gender and environmental perspectives may also manifest differently across these various positions. Based on this theoretical reasoning, the following research hypotheses have been formulated.

Null Hypothesis	Alternative Hypothesis/Research Hypothesis
H_{01} The impacts of gender on environmental attitudes does not vary based on people's position within the world system.	H_{11} The impacts of gender on environmental attitudes varies based on people's position within the world system.
H_{02} Material deprivation does not change people's environmental attitudes due to position within the global system.	H_{12} Material deprivation changes people's environmental attitudes due to position within the global system.
H_{03} The impacts of educational attainment on environmental attitudes does not diverge based on people's the position within the world-system.	H_{13} The impacts of educational attainment on environmental attitudes diverges based on people's the position within the world-system.
H_{04} The impact of social class on environmental attitudes does not vary by world-system position.	H_{14} The impact of social class on environmental attitudes varies by world-system position.
H_{05} Age group determined environmental concern does not vary across world-system positions.	H_{15} Age group determined environmental concern varies across world-system positions.
H_{06} The impact of religious believe on environmental attitudes does not vary by world-system position.	H_{16} The impact of religious believe on environmental attitudes varies by world-system position.

2. Research Methodology and Data Analysis:

In the WVS Wave 7, it includes 66 country data. In the study, based on World-System Theory, the 66 included countries have been categorized into three groups—Core, Semi-periphery, and Periphery—according to their structural positions within the global capitalist world-economy. Each country was recoded into these three World-System categories using the 'B_COUNTRY_ALPHA' variable from the World Values Survey (Wave 7), and this classification has been utilized in all subsequent analyses.

Prior to data analysis, variables containing missing values were excluded, employing the method of listwise deletion. Additionally, the sampling weights provided by the WVS were applied to ensure that the survey results were more representative.

2.1. Dependent variable:

I consider “environmental perception” as dependent variable for this study constructed from Question Q111 of the WVS. Here, respondents were asked to express their views regarding the prioritization between environmental protection and economic growth. In Q111, it was stated that “Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view? A. Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs B. Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.”

Respondents were provided different potions, including whether they are supporting environment protection or economic growth, or they want answering other. Originally, environmental protection perception was coded as 1 and perception towards economic growth was coded as 2, other answer was coded as 3. Some responses were coded as negative values, such as -1 (don’t know), -2(no answer), -4 (not asked), -5 (missing values). Other responses, including other answer (coded as 3) and negatively coded response were dropped from the datasets. For the convenience, I coded the independent variable as binary one and first response perception toward environmental protection was recoded as 1, and the second response, perception towards economic growth was coded as 0.

2.2. Independent Variables

The main independent variable of this research is countries and, as mentioned-above, countries were labelled as ‘Core’, Semi-Periphery’ and ‘Periphery’ under World System. Again, Gender is coded as Q260 in the WVS codebook. I made this a dummy variable, recoding the original codes to assign 1 = Female and 0 = Male, to explore the differentiated outcomes and predictions. Also, I took out all responses that were negatively coded like "no answer" and "missing". In addition, several socio-economic variables related to environmental perception were included. They are education (Q275R), Social class (Q287), Age (X003R2) and religious thinking(Q6). I eliminated the missing value that was attached to each socio-economic variable. For the religious attitudes variable (Q6), I removed responses that were invalid or missing (-1, -2, -4, -5). Thereafter, the variable was recoded as a binary variable. Respondents who answered that religion was “Very important” or “Important” were coded as “High religiosity” (1) and respondents who answered that religion was “Not very important” or “Not at all important” were coded as “Low religiosity” (0). All missing values for age were dropped, and the original age categories were recoded: 16–29 as young, 30–49 as middle-aged, and 50 + as old.

The World Values Survey (WVS) provided the question/variables Q51 (gone without enough food to eat), Q53 (gone without needed medicine or treatment that you needed), Q54 (gone without a cash income) and Q55 (gone without a safe shelter over your head) which were used to build a “material deprivation” index. These variables were coded as 1, 2, 3, 4, with 1 = “Often” and 4 = “Never,” and were recoded as such for further analysis. First, we discarded invalid or missing responses (–1, – 2, – 4, – 5) to each variable. The variables were dichotomously recoded. For food, medical care, cash income and housing, the responses “Often” and “Sometimes” were coded as deprived (1), while the responses “Rarely” and “Never” were coded as non-deprived (0). These four variables were combined to create a composite deprivation index. I checked the internal consistency of the indexed variable using Cronbach’s alpha. The index showed acceptable reliability ($\alpha = 0.71$) indicating that the four deprivation indicators consistently measured a common dimension of material deprivation. Respondents reporting deprivation in three or more of these areas were classified as having “High deprivation” (1), whereas those reporting deprivation in less than three were classified as having “Low deprivation” (0).

2.3. Data Analysis:

I utilized a four-stage Ordinary Least Squares (OLS) regression model to investigate the effects of gender, world system, and socioeconomic and religious factors on environmental perceptions. For all regression models, I used robust standard errors to account for potential heteroskedasticity and obtain more reliable estimates of the coefficient standard errors. In the first model, I ran a baseline regression of environmental perception over economic growth with gender, and world system position. In Model 2, I added an interaction effect between gender and world system position to see how environmental perception varies by gender and respondent's position in core, semi-periphery and periphery countries. This allowed for an examination of differences in women's environmental perceptions across the core, semi-periphery, and periphery relative to men. In Model 3, I added the interaction of material deprivation and world system position to the current interaction. This model was used to explore the moderating role of global location in the relationship between material deprivation and environmental perceptions. Finally, in Model 4, interaction added with all the independent variables with world system to see how environmental perceptions vary among different variables in semi-periphery and periphery in reference to the core countries.

$$Y_i = \beta_0 + \beta_1 W_i + \sum_{k=1}^{K} \beta_k X_{ki} + \sum_{k=1}^{K} \gamma_k (X_{ki} \times W_i) + \epsilon_i$$

Where,

Y_i= Environmental Perception of respondent i

W_i = World System (core, semi-periphery and periphery) position of respondent i

For X_{ki}= The value of the k-th explanatory variable for respondent i (gender, material deprivation, social class, educational attainment, religious affiliation, and age); where k denotes each explanatory variable and i denotes each respondent.

β_0 = Intercept (constant term) of the Regression Model

β_1 = the effects the world system position(main)

β_k = the effects of the explanatory variables (gender, material deprivation, social class, education, religiosity, and age)

γ_k = effects of interaction between each explanatory variable and world system

ε_i = error term

Based on Model 4, the Wald test was applied to verify whether the interactions between the position in the global system and the explanatory variables were jointly statistically significant. Through this test, the proposed hypotheses in the study were evaluated (UCLA Statistical Consulting Group, 2026). All statistical analyses in this study were performed using Stata/MP 17.0 (Parallel Edition; StataCorp LLC, College Station, Texas, USA) software.

3. Results

3.1. Socio-demographic Characteristics of the Respondents:

The socio-demographic characteristics of the respondents included in the study are shown in Table 1. The findings show that 58.67% of respondents were more concerned with environmental protection rather than economic

growth, while 41.33% were more concerned with economic growth and job creation. The sample had slightly more women (51.89%), and most of the respondents were from the periphery nations (38.88%) and the semi-periphery (35.99%). In terms of age, young and middle-aged were relatively more prevalent. In terms of education, the largest number of respondents had a medium level of education (35.46%). People with low and high levels of education are represented by similar numbers of respondents. Middle-class (39.11%) and working-class/lower-class (37.53%) respondents were the most heavily represented in terms of social class. Regarding religious affiliation, most respondents (63.94%) were affiliated with Abrahamic religions. The sample is generally rich in global, social, and demographic diversity, providing a solid basis for analyzing the social foundations of environmental perspectives.

Table 1
Socio-demographic characteristics of the respondents

Variables	Categories	n	%
Environmental Perception	Prioritizes environmental protection	48,240	58.67
	Prioritizes economic growth and job creation	33,977	41.33
Gender	Male	39,555	48.11
	Female	42,662	51.89
World System Position	Core	20,823	25.13
	Semi-Periphery	29,815	35.99
	Periphery	32,211	38.88
Age Group	16–24 years	12,210	14.89
	25–34 years	18,047	22.01
	35–44 years	16,433	20.05
	45–54 years	14,214	17.34
	55–64 years	11,702	14.27
	65 years and above	9,373	11.43
Educational Attainment	Lower education	26,304	32.09
	Middle education	29,070	35.46
	Higher education	26,605	32.45
Subjective Social Class	Upper/Upper-middle class	19,148	23.36
	Middle class	32,062	39.11
	Working/Lower class	30,769	37.53
Religious Identity	Abrahamic religions	52,569	63.94
	Non-Abrahamic religions	6,724	8.18
	No religion/Other	22,924	27.88

3.2. Correlation Matrix:

Table 2 displays the Pearson's correlation coefficients of the dependent and independent variables of my study. Table 2 demonstrates a positive correlation between environmental perception and benign women (r = .016, p < .001) and level of education (r = .083, p < .001). Table 2 further shows a negative correlation between environmental perception and relative position in the world-system (r = − .064, p < .001). In other words, there is a tendency for the perception of environmental protection to decline as respondents' world-system position moves from the core towards the semi-periphery and periphery. In the same way, environmental attitudes were negatively correlated with material deprivation (r = − .046, p < .001), lower social class (r = − .023, p < .001), high religiosity (r = − .065, p < .001), and age (r = − .020, p < .001). Again, the inter-variable correlation results presented in Table 2 indicate the highest relationship between world-system position and religiosity (r = .424, p < .001) and the negative correlation between education and social class (r = − .297, p < .001) and between education and world-system position (r = − .214, p < .001). However, none of the correlations exceeded conventional multicollinearity thresholds, indicating that no strong multicollinearity issues are present in the regression analysis.

Table 2
Pearson correlations among the variables (N = 82,849)

Variables	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
1.Environmental concern	1.000							
2. Female	.016***	1.000						
3. World-system position	− .064***	− .003	1.000					
4. Material deprivation	− .046***	− .002	.156***	1.000				
5. Social class	− .023***	.004	.077***	.109***	1.000			
6. Educational attainment	.083***	− .028***	− .214***	− .123***	− .297***	1.000		
7. Religiosity	− .065***	.038***	.424***	.112***	.057***	− .177***	1.000	
8. Age group	− .020***	− .013***	− .209***	− .041***	.041***	− .132***	− .051***	1.000

*Notes. Pearson correlation coefficients are reported below the diagonal. ***p < .001.*

3.3. Regression Results:

Table 3 Table 3 presents the OLS regression results for predicting environmental perception in relation to economic growth. For the analysis of differences in gendered environmental perceptions in the world system position, including core, semi-periphery, and periphery, I utilized 04 OLS regression models step by step, incorporating control variables and interaction terms to explain the social and global construction of environmental perception of the respondents over economic growth. Robust standard errors were used in each regression model to control for potential heteroskedasticity. Each model was statistically highly significant overall (p < .001). Data from 82,849 respondents were used in all analyses.

In Model 1, I include only the variables gender and world system position. The findings demonstrate that women are more pro-environmental compared to men, as indicated by β = 0.015 and p < 0.001. This means that, overall, women prioritize environmental protection over economic growth more than men do. However, gendered environmental perception changes due to world-system positions. Compared with women in core nations, on average, women in

semi-periphery nations have a 2.4 percentage-point lower environmental perception, which is statistically significant. Gendered environmental perception is much lower in peripheral nations, on average 7.7 percentage points lower than that of women in core nations, a difference that is significant at $p < .001$. The results suggest that gendered environmental perception is declining gradually from core to semi-periphery to the periphery. In other words, women in core countries are more environmentally supportive, whereas women in the semi-periphery and periphery care more about economic growth and securing livelihoods than about environmental protection.

In Model 2, an interaction was performed between gender and world system to examine the effects of environmental perception among women in the periphery and semi-periphery relative to core countries. Now, in this model, women demonstrate a significantly stronger perception of environmental protection than men ($\beta = 0.038$, $p < .001$). Furthermore, this model demonstrates that women's positive environmental attitudes are comparatively weaker in the semi-periphery ($\beta = -0.025$, $p < .001$) and the periphery ($\beta = -0.035$, $p < .001$) than in core countries. This suggests that women in the semi-periphery and periphery, in general, tend to be less environmentally oriented than women in core nations.

Table 3
OLS regression for predicting environmental perceptions

Variables	Model 1	Model 2	Model 3	Model 4
Gender				
Female	0.015***	0.038***	0.043***	0.045***
	(0.003)	(0.007)	(0.007)	(0.007)
World-System Position				
Semi-periphery	−0.024***	−0.011†	0.011	−0.029
	(0.004)	(0.006)	(0.007)	(0.019)
Periphery	−0.077***	−0.059***	−0.022**	−0.061**
	(0.004)	(0.006)	(0.007)	(0.020)
Gender × World-System				
Female × Semi-periphery	—	−0.025**	−0.027**	−0.029**
		(0.009)	(0.009)	(0.009)
Female × Periphery	—	−0.035***	−0.039***	−0.041***
		(0.009)	(0.009)	(0.009)
Material Deprivation				
High deprivation	—	—	−0.048***	−0.067***
			(0.006)	(0.020)
High deprivation × Semi-periphery	—	—	—	−0.006
				(0.022)
High deprivation × Periphery	—	—	—	0.033
				(0.021)
Social Class				
Middle	—	—	0.007	−0.013
			(0.004)	(0.008)
Working/Lower	—	—	0.006	−0.029**
			(0.005)	(0.009)
Middle × Semi-periphery	—	—	—	0.031**
				(0.011)
Middle × Periphery	—	—	—	0.032**

*Notes. Entries are unstandardized regression coefficients; robust standard errors are reported in parentheses. Reference categories are Male, Core countries, Low material deprivation, Upper social class, Lower educational attainment, Low religiosity, and Young respondents (18–29 years). † p < .10, * p < .05, ** p < .01, *** p < .001.*

Variables	Model 1	Model 2	Model 3	Model 4
Gender				
				(0.011)
Working/Lower × Semi-periphery	—	—	—	0.060***
				(0.012)
Working/Lower × Periphery	—	—	—	0.041***
				(0.012)
Educational Attainment				
Middle	—	—	0.017***	0.033**
			(0.004)	(0.011)
Higher	—	—	0.080***	0.123***
			(0.005)	(0.011)
Middle × Semi-periphery	—	—	—	−0.001
				(0.013)
Middle × Periphery	—	—	—	−0.026*
				(0.013)
Higher × Semi-periphery	—	—	—	−0.052***
				(0.013)
Higher × Periphery	—	—	—	−0.059***
				(0.013)
Religiosity				
High religiosity	—	—	−0.040***	−0.054***
			(0.004)	(0.007)
High religiosity × Semi-periphery	—	—	—	0.028**
				(0.009)
High religiosity × Periphery	—	—	—	0.018
				(0.012)
Age Group				
Middle-aged (30–49)	—	—	−0.017***	−0.045***
			(0.004)	(0.010)

*Notes. Entries are unstandardized regression coefficients; robust standard errors are reported in parentheses. Reference categories are Male, Core countries, Low material deprivation, Upper social class, Lower educational attainment, Low religiosity, and Young respondents (18–29 years). † p < .10, * p < .05, ** p < .01, *** p < .001.*

Variables	Model 1	Model 2	Model 3	Model 4
Gender				
Older (50+)	—	—	−0.030***	−0.061***
			(0.005)	(0.010)
Middle-aged × Semi-periphery	—	—	—	0.021†
				(0.012)
Middle-aged × Periphery	—	—	—	0.039***
				(0.012)
Older × Semi-periphery	—	—	—	0.019
				(0.012)
Older × Periphery	—	—	—	0.060***
				(0.012)
Constant	0.618***	0.606***	0.595***	0.617***
	(0.004)	(0.005)	(0.008)	(0.015)
Observations	82,849	82,849	82,849	82,849
F statistic	124.83***	78.76***	87.14***	45.75***
R^2	0.0045	0.0047	0.0130	0.0147

*Notes. Entries are unstandardized regression coefficients; robust standard errors are reported in parentheses. Reference categories are Male, Core countries, Low material deprivation, Upper social class, Lower educational attainment, Low religiosity, and Young respondents (18–29 years). † p < .10, * p < .05, ** p < .01, *** p < .001.*

Model, demonstrated in the table, adds female and world system, material deprivation, social class, education, religiosity (religious thinking), and age. Similarly, in the other two models (Model 1 and Model 2), the positive effect of women is also significant (β = 0.043, p < 0.001), which means that even after controlling for other social and economic variables, women are still more likely to value environmental protection than men. The negative interaction coefficients for women in the semi-periphery and in the periphery indicate that women in the periphery and the semi-periphery still take a significantly less pro-environmental stance than women in the core counties. Material deprivation negatively affects environmental attitudes (β = -0.048, p < 0.001).

Model 3 additionally demonstrates that the effect of education is very strong. Those with a moderate level of education have more positive environmental attitudes than those in the "lower education" group, a difference that is statistically significant (β = 0.017, p < .001). The effect is even stronger among the highly educated, and it is also statistically significant (β = 0.08, p < .001). Unlike education, high religiosity (religious thinking) is negatively associated with environmental attitudes (β = -0.04, p < .001), compared to low religiosity. This finding indicates that individuals who think religion is very important are, on average, 4 percentage points less likely to support environmental protections. The effects of age also show a downward trend in environmental protection relative to economic growth. Middle-aged respondents are less likely to support environmental protection than young adults (β = -0.018, p < .001); this negativity is even more pronounced among the elderly (β = -0.03, p < .001), a statistically significant difference.

Model 4 adds interaction effects of world-system position by gender, material deprivation, social class, educational attainment, religious beliefs, and age. The positive effect of being women persists even in this full model ($\beta = 0.045$, $p < 0.001$), indicating that women care more about environmental protection than men even when controlling for other variables. The main effect of the semi-periphery on world-system location is not statistically significant ($\beta = -0.029$, $p > 0.05$). Respondents in periphery countries give significantly lower priority to environmental protection than in core countries ($\beta = -0.061$, $p < .01$). The effect of gender is also negative and significant for both the semiperiphery ($\beta = -0.029$, $p < 0.01$) and the periphery ($\beta = -0.041$, $p < .001$) in relation to position in the World-System.

According to the table, high levels of material deprivation significantly reduce support for environmental conservation ($\beta = -0.067$, $p < .001$), but the interactions between material deprivation and world-system position are not statistically significant. Regarding social class, the main effect of the working or lower class is negative and significant ($\beta = -0.029$, $p < .01$), whereas the main effect of the middle class is not significant. On the other hand, the interactions between social class and world-system location, especially in the semi-periphery and periphery, are positive and significant, indicating that the influence of social class varies according to world-system location.

The table further demonstrates that educational attainment is significantly associated with a positive attitude towards environmental conservation ($\beta = 0.123$, $p < 0.001$) in terms of higher education. Nevertheless, this positive effect is relatively weaker in semi-peripheral ($\beta = -0.052$, $p < .001$) and peripheral ($\beta = -0.059$, $p < .001$) countries. High religiosity also negatively affects environmental conservation support ($\beta = -0.054$, $p < .001$), but the negative effect is somewhat less strong in the semi-periphery ($\beta = 0.028$, $p < .01$). In terms of age, middle-aged ($\beta = -0.045$, $p < .001$) and older ($\beta = -0.061$, $p < .001$) respondents provide lower ratings of environmental conservation than younger respondents, but the negative effect is relatively weak in peripheral countries.

The findings have generally supported our hypotheses about the determinants of the WVS respondents' propensity to prefer environmental protection over economic growth (see the Table 4). A robust OLS regression model was run (Model 4) followed by a Wald test to determine whether the various variables and interaction effects were statistically significant (See the hypothesis test results in Table 4).

Table 4
Wald Test Results and Hypothesis Decisions

Null Hypothesis	Alternative Hypothesis/Research Hypothesis	Statistical Evidence	Decision
H_{01} The impacts of gender on environmental attitudes does not vary based on people's position within the world system.	H_{11} The impacts of gender on environmental attitudes varies based on people's position within the world system.	Wald test: F = 11.13, p < .001	Rejected H_{01}; Accepted H_{11}
H_{02} Material deprivation does not change people's environmental attitudes due to position within the global system.	H_{12} Material deprivation changes people's environmental attitudes due to position within the global system.	Wald test: F = 5.26, p = .005	Rejected H_{02}; Accepted H_{12}
H_{03} The impacts of educational attainment on environmental attitudes does not diverge based on people's the position within the world-system.	H_{13} The impacts of educational attainment on environmental attitudes diverges based on people's the position within the world-system.	Wald test: 9.31, p < .001	Rejected H_{03}; Accepted H_{13}
H_{04} The impact of social class on environmental attitudes does not vary by world-system position.	H_{14} The impact of social class on environmental attitudes varies by world-system position.	Wald test: F = 6.82, p < .001	Rejected H_{04}; Accepted H_{14}
H_{05} Age group determined environmental concern does not vary across world-system positions.	H_{15} Age group determined environmental concern varies across world-system positions.	Wald test: 6.96, p < .001	Rejected H_{05}; Accepted H_{15}
H_{06} The impact of religious believe on environmental attitudes does not vary by world-system position.	H_{16} The impact of religious believe on environmental attitudes varies by world-system position.	Wald test: F = 4.85, p> .01	Rejected H_{05}; Accepted H_{15}

4. Discussion

The findings of this paper suggest that the attitudes towards environmental protection is the artefact of an explicit consolidation of several aspects, including but not limited to, individual values, socio-economic conditions, as well as the positions global political economic structure- the world system. Preexisting studies, as Cabalu et al. (2026) and Jafar and Abu-Hussein (2025), have identified education, religion, gender, class and other individual level characteristics as determinants of attitudes towards the environment protection over economic growth. However, this paper demonstrated how environmental perceptions are shaped by individual's position within the world-system position, principally within core, the periphery and the semi-periphery. Therefore, this study argued that world-system position is not simply a macro-level predictor of environmental preferences; it is a structural context within which individual social characteristics are transformed into environmental preferences.

This paper well reflects that, on average, women prioritize environmental protection more so than men. Thus, this finding supports and align with the earlier studies (see Xia & Li, 2023; Echavarren, 2023; Momsen, 2000). Nonetheless, this study shows that the structural diversity of this gender difference as opposed to assuming it is a fixed or universal phenomenon. Women in core countries prioritize environmental protection more so than men. On the contrary, this doesn't appear to be the case in the semi-periphery and periphery as strongly. This means that

being a woman does not, by itself, guarantee a specific environmental position; rather, the relationship between gender and environmental prioritization is linked to a society's economic security, institutional capacity, political culture, environmental movements, and global political-economic position.

The evidence from this study provide a new avenue for applying Wallerstein's world-systems theory to environmental sociology. Wallerstein (1974, 2004) defined the contemporary world-economy in terms of unequal relationships amongst the core, semi-periphery, and periphery in the organization of production, capital, technology, and political power. This paper argues that structural inequality goes beyond production, wealth and development, and is manifested in social processes through which people make trade-offs between environmental protection and other concerns. Hence, world-system position should be used not only to analyze variations in average environmental attitudes, but also to analyze different structural contexts that influence social physiognomies. Thus, this study, substantially, makes link between micro-level attitudes towards the environment and macro-level structures of the world-system or the global political economy. It is commonly the case that attitudes such as education, social class, material deprivation, religiosity, age and gender are analyzed at the individual level. The findings of the study indicate that social meanings associated with the same attitude may differ at various positions in the world-system. For instance, the type of relationship, if any, that higher education or higher social class may have with environmental prioritization in the core may not be the same in the semi-periphery or periphery. Therefore, the study argues that the social basis of environmental attitudes is structurally contingent rather than universal or context-free.

The results of the study important dialogue with the post-materialist thesis postulated by Arnold Inglehart (1997, 1995). As Inglehart (1997, 1995) suggests, after economic security is addressed, individuals focus more on and value the protection of the environment, the realization of human rights, and quality of life. The slightly higher focus in the core countries on environmental protection is consistent with this theory. However, this study shows that explaining this difference in terms of economic security alone is not inadequate enough to explain the broader aspects. As the effect of gender, education, class and material deprivation vary with world-system position, post-material theses are limited explain these structural variations of the effects. Therefore, explaining beyond post-material thesis, this study argues that priorities for environmental protection depend on the interplay between individual economic security and the broader global political economy. As Chirot and Hall (1982) suggest, to fully explain a society's behavior or values, one must analyze the social conditions of those behaviors in the context of the world-system. In line of their suggestion and in the context of post-material perspective, this study helps clarify the distinction between environmental concern and environmental prioritization. People in semi-peripheral and peripheral societies can certainly be concerned about environmental degradation and climate risks and be keenly aware of the direct impacts of pollution, such as water pollution, deforestation, biodiversity loss, food insecurity, and other disasters. However, they may well be unwilling to prioritize environmental concern over the imperatives of poverty, food insecurity, unemployment, and other material needs. Thus, giving the environment less priority than economic growth is not necessarily indicative of less environmental concern. Rather, it may reveal a structural conflict between material insecurity and environmental protection. This distinction is important because it places environmental attitudes within a larger political-economic reality, rather than simply a measure of personal values.

The results of this study can be explained with the broader ecological world-system concept described by Moore (2003). Moore emphasizes that the expansion rearranges nature, labor, and the ecological relations of production. Hence, in Moore's interpretation, the world-system continually evolves and reorganizes nature. Therefore, the world-system, in a general sense, can be described as an ecological one, and its core consists of the most advanced centers of integrated production and a worldwide division of labor. Jorgenson and Givens' (2013) ecologically unequal exchange illustrates that environmental costs and benefits are not equally shared; the core regions of the

world-system reap the greatest benefits and environmental costs, and burdens are transferred to peripheral and semi-peripheral regions. This paper builds on these ideas in a diverse but intertwined venture: global environmental inequality is not limited to resource extraction, pollution, or ecological degradation; the same global framework is also linked to the social processes by which people value and prioritize environmental protection.

With a relatively high environmental perception in the core countries presents an apparent paradox. These countries are historically industrialized and account for a significant share of the use fossil of global, natural resource extraction, and high carbon emissions (Hickel, 2020). This contrast can be explained not only by the transition from materialistic to post-materialistic values as a result of economic prosperity, but also by the socio-ecologically constituted subjective reality of the individual, which is based on the interrelationship of social and environmental realities. The relatively advantageous economic position of core countries in the world capitalist system has ensured their greater material security on the one hand; on the other hand, the increasing impact of pollution and climate change resulting from historical industrialization and environmental change may also raise concerns about their livelihoods and environmental security. Thus, it is plausible to argue that support for environmental protection is more likely based on the empirical understanding of the negative economic consequences and environmental crisis in the world system than on an expression of post-materialistic values. Based on this perceptive, this paper, once more, argues that the focus on environmental concerns over economic growth can be explained by countries' structural position in the world-system, rather than by changes in values.

This paper considers semi-periphery with an especial importance in the world system analysis as its core theoretical frame. The semi-periphery is not merely a developmental stage between core and periphery; rather, it is a contradictory structural position, where rapid economic growth, industrialization, urbanization, the expansion of the middle class, inequality, and material insecurity coexists (Cairó-i-Céspedes and Palacios Cívico, 2022). Consequently, this study does not assume that environmental prioritization in semi-peripheral societies will always take a position between the core and the periphery; instead, the tension between environmental concerns and economic security in these societies can create a different type of social order, and economic concerns and expectations. The paper brings a new possibility and emphasizes the need to examine the semi-periphery more precisely in environmental sociology.

In addition to applying world-systems theory as a macro-level explanatory framework for environmental attitudes, this study demonstrates that the positioning of a society within the world-system structures the environmental meaning and effects of social physiognomies. For example, gender, education, class, material deprivation, religion, and age are generally considered as determinants of environmental priorities. However, the effects of these social physiognomies on environmental priorities are context-specific, and they should be studied within the global social and political economy. This implies that environmental prioritization and the structure of society should be considered at the same level, as part of an interconnected macro-micro process.

This study suggests a more comprehensive questioning of the discipline of environmental sociology: do global political-economic inequalities only affect the distribution of environmental resources, risks, and damages, or do they also shape the social basis of how people value and prioritize environmental protection? This paper provides weighty piece of evidence in favor of the second proposition. In this context, this study takes world-system analysis beyond explaining environmental outcomes or country-based average attitudes, showing that global structural position also conditions the process by which individual-level characteristics are transformed into environmental prioritization. This macro–micro connection is the main theoretical contribution of the current study.

5. Conclusion

This paper demonstrates that the attitudes on environmental protection compare to economic growth does not reflect personal values or social position, such as education or class; or demographic characteristics. Rather, it is shaped by the interaction of individual social characteristics with the larger global political-economic context, specifically world system position. Although on average women holds greater environmental protection perception compared to men, the gender gap and the relationship of other individual-level characteristics (e.g., education, class and material deprivation) also varies across the core, the semi-periphery and the periphery. This shows that the social foundations of environmental priorities are context-dependent and are shaped by the position of a country in the world system. This paper contributes to environmental sociology by linking micro-level environmental attitudes to macro-level political economy, including the world-systems theory. This research goes beyond treating world-system position as an additional country-level variable to assess environmental prioritization. Instead, it explains that world-system position is a structural level context that defines the relationship between social position (i.e., class, gender, education and material conditions) to environmental prioritization. This view illustrates the limitations of interpreting environmental concern as the result of post-materialist values or affluence of individuals and shows that environmental priorities are formed and based on socio-ecological realities. Nevertheless, I acknowledge that causal inference is quite limited because of the use of cross-sectional data. Furthermore, other contextual factors, for example, national institutional capacity, level of ecological risk, governance of the environment, and direct environmental experience, are lacking in the study. Hence, this paper calls for future studies incorporating longitudinal and multilevel studies. The study argues that inequality in the global political economy not only determines how the environmental risks, costs and benefits are distributed, but also structurally conditions, at the deepest level of the social structure, who, from which social position, will prioritize protection of the environment.

Declarations

Conflict of Interests:

The author declares no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Consent for publication:

Not Applicable

Ethical Accordance

Not Applicable

Consent to Participate:

Not Applicable

Ethics Approval:

This study only utilizes the World Values Survey (WVS) data which are publicly available. Therefore, ethical approval and informed consent statements are not applicable for this study.

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Author Contribution

Md. Mizanur Rahman independently conceptualized and designed the research, developed the theoretical framework, conducted the literature review, collected and prepared the World Values Survey (WVS) data, analyzed the data, interpreted the results, prepared tables and figures, drafted and revised the manuscript, and provided final approval for publication.

Data Availability

The data used in this study were obtained from the publicly available dataset of the World Values Survey (WVS) Wave 7 (2017–2022). This dataset can be accessed via the official website of the World Values Survey Association (https://www.worldvaluessurvey.org) subject to registration and adherence to data usage terms. No new primary data were collected for this study. The Stata code and data analysis scripts used in the research are available from the corresponding author upon reasonable request.

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