



Turkey's Environment vs. Economic Growth Dilemma: Unpacking Perceptions and Influential Factors

Türkiye'nin Çevrenin Korunması-Büyüme İkilemi: Algıların ve Etki Eden Faktörlerin Analizi

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öz

Bu çalışma, Türkiye'de ekonomik büyümenin sağlanması ve çevrenin korunması dikotomisi konusunda bireylerin tutumlarının belirleyicilerini analiz etmektedir. Çalışmada, lojistik modeller yardımıyla, maddi refah, yaşam memnuniyeti, yaş, cinsiyet, eğitim seviyesi, istihdam durumu, yerleşim yeri, dindarlık ve politik görüş gibi çeşitli sosyo-ekonomik ve sosyo-demografik faktörlerin bireylerin çevreyi önceliklendirme tutumlarına etkileri araştırılmaktadır. Dünya Değerler Araştırması, 7 Etap verilerini kullanarak elde edilen 1,935 katılımcılı örneklem kullanılarak yapılan lojistik regresyon analizi sonuçları, Türkiye'de daha yüksek maddi refaha ve yaşam memnuniyetine sahip bireylerin büyüme yerine çevreyi önceliklendirme eğilimlerinin daha yüksek olduğunu göstermektedir. Çalışmanın bulguları, Türkiye örnekleme için neoklasik yaklaşımın çevrenin bir lüks mal olarak kabul edilebileceği görüşünü desteklemektedir. Bununla beraber, 60 yaşın üzerindeki bireyler, yarı zamanlı çalışanlar ve emekliler, kendini dindar olarak tanımlamayan, yüksek eğitilmiş, daha fazla çocuğu olan ve sol ideolojiye sahip bireylerin, her kategorinin referans grubuna kıyasla ekonomik büyüme yerine çevresel korumaya öncelik verme eğiliminde oldukları sonucuna ulaşılmıştır. Diğer taraftan, çevrenin korunmasını önceliklendirmede, referans gruplara kıyasla yerleşim yerine (kent-kır dikotomisi) veya cinsiyete dayalı istatistiksel olarak anlamlı farklılıklar tespit edilememiştir. Çalışmanın bulguları, Türkiye'nin makro düzeydeki büyüme ve çevre politikası dizaynlarında, sosyoekonomik ve demografik farklılıkların dikkate alınması gerektiğine işaret etmektedir.

Anathar kelimeler: Çevrenin Korunması, Büyüme, Post-materyalizm, Politika Tercih, Türkiye.

ABSTRACT

This study analyzes the determinants of individuals' perceptions towards the dichotomy of achieving economic growth and environmental preservation in Turkey. Using logistic models, the study investigates the impact of various socio-economic and socio-demographic factors such as material well-being, life satisfaction, age, gender, education level, employment status, settlement type, religiosity, and political view on individuals' attitudes towards prioritizing the environment. The results of logistic regression analysis, based on a sample of 1,935 participants obtained using the World Values Survey, wave 7, indicate that individuals with higher material well-being and life satisfaction in Turkey tend to prioritize the environment over growth. The findings of this study confirm the neoclassical perspective on environment for the Turkish cohort, which indicates the environment can be accepted as a luxury good. Additionally, it is found that individuals aged 60 and above, part-time workers and retirees, those who do not identify as religious, highly educated individuals, those with more children, and individuals with a left-wing ideology are more inclined to prioritize environmental protection over economic growth compared to each category's reference group. On the other hand, no statistically significant differences based on settlement type (urban-rural dichotomy) or sex were detected in prioritizing environmental preservation over economic growth. The findings of the study indicate that, in designing Turkey's macro-level growth and environmental policies, socio-economic and demographic disparities need to be taken into consideration.

Keywords: Environmental protection, Economic growth, Post-materialism, Policy Preference, Turkey

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Introduction

Ensuring economic growth has been considered as a superior objective compared to the preservation of the environment, especially for many years following World War II. The idea is mainly built on the strong belief that economic growth has greatly improved people's quality of life and made a country more competitive on the world stage. As a result, various economic and social scenarios have been extensively conditioned to singularly concentrate on gross domestic product (GDP) as the definitive measure, at least until the end of the 1960s. However, the concept of "limits to growth" introduced by the Rome Club which was followed by the idea of sustainable development promoted by the United Nations (UN) in the 1990s, has brought about a remarkable change in mainstream economics. The new process led by UN is characterized as a path in which "development meets the needs of the present without compromising the ability of future generations to meet their own needs" as in the report of the Brundtland Commission in 1987 entitled "Our Common Future" (United Nations, 1987; Brundtland, 1985). This sustainable development framework prompted the exploration of a novel model that incorporates the multifaceted dimensions of economic growth and development, encompassing economic, social, and ecological aspects as well as intergenerational prosperity. This approach contrasts with the models of unlimited exponential growth that predominated until that time by pointing its limits (Meadows et al., 1972). Since the late 1960s, numerous studies have emerged examining the interplay between environmental degradation and economic growth, suggesting both its derivation from growth and its potential to constrain growth (Kneese, 1971; Nordhaus, 1975, 1977).

In the theoretical approaches, two important points have been highlighted: On the one hand, in the neoclassical version of considering the environment, there is the endorsement of a perspective that treats environmental degradation as just a negative externality. According to the basic neoclassical approaches, ensuring production and consumption are vital for policies aimed at fostering economic growth, sometimes in a "green" way. And naturally, there will be a cost to all the production and consumption processes, like environmental pollution. If the countries follow strict environmental rules, this might be a deterrent factor for industrial production, and this probably affects the industrial production and performance of the countries (Jefferson et al., 2013). On the other hand, there is a call for a reassessment of the concept of growth itself, giving higher priority to environmental protection and environmental sustainability. As emphasized in Raworth's renowned book "Doughnut Economics," remaining agnostic about growth while simultaneously endeavoring to craft a society that navigates between the ecological ceiling and the social foundation proves to be a complex challenge (Raworth, 2019). This transformation has been particularly shaped by the introduction of the 17 Sustainable Development Goals (SDGs) by the United Nations Development Programme (UNDP), where addressing climate change has been elevated to a paramount objective, and the "planetary boundaries" discussions led by the Stockholm Resilience Center (Rockström et al., 2019a, 2019b).

The prioritization of growth and environmental considerations in terms of individuals' preferences constitutes one of the central domains within the field of development economics. While there exists an extensive body of literature exploring economic aspects and climate change policies, the focus on individuals' perceptions has been notably absent in recent discussions. In Turkey, since the proclamation of the republic, the prioritization of economic growth has been the central focus of state practices, and debates concerning growth, development, and sustainability have been recurrent topics within the realm of economic policy and extensively examined in academic research. Understanding these dynamics is vital because comprehending individual preferences holds the potential to significantly contribute to the formulation of a guiding framework for national-level policymaking and to examine how civil society considers environmental issues beyond GDP-type variables. In addition to this, recently countries have begun to declare climate change emergency, signifying that human impact on planet Earth is catastrophic, and all actors in this process should take responsibility as soon as possible (Ripple et al., 2019). This is crucial because environmental pollution is a major contributor to climate change, and the role of civil society is paramount in mitigating environmental degradation. In this respect, understanding the drivers of individual perceptions of environmental and economic priorities sheds light on the dynamics of civil society. With this framework, in this study, we aim to

analyze the determinants of individuals' preferences for the growth-environment trade-off in Turkey using data from an international questionnaire, World Values Survey (WVS) Data, Wave 7. Specifically investigating the impact of both material well-being and life satisfaction as influential factors at the individual level while controlling for demographics such as age, sex, education level, employment status, number of children, religiosity, settlement type, as well as the general political view and specific party preferences, the study aims to enhance the existing understanding of the growth-environment trade-off in Turkey, especially in the context of the ongoing climate emergency.

1. A Brief Literature

The exploration of determinants that shape public opinion regarding the trade-off between economic growth and environmental preservation has been a prominent focus within scholarly discourse. In this section of the study, a summary of the literature focusing on public opinion and individual perceptions, rather than studies using macro variables analyzing the environment and growth, is presented. Basically, the literature in this field can be categorized into three main dimensions: studies on the effects of post-materialistic values on the trade-off between growth and the environment; life satisfaction and the trade-off between growth and the environment - it should be highlighted that this literature mostly investigates the impact of environmental conditions on life satisfaction; finally, the literature that addresses how socio-economic and demographic variables influence individuals' attitudes towards the growth-environment dichotomy. In the first and second dimensions of the literature, much of this investigations have been rooted in Inglehart's influential "value change theory" (Inglehart, 1977 [2015]), which posits that individuals in industrialized societies tend to shift their attention toward environmental protection in a post-materialist stage once fundamental materialistic needs such as sustenance, shelter, and security—aligned with the foundational work of Maslow's hierarchy of needs—are met (Maslow and Lewis, 1975; McLeod, 2007). When it comes to meeting physiological needs, the next level is often referred to as "safety." In this context, safety primarily pertains to the security and well-being of individuals within specific settings like school or home (Burlison and Thoron, 2014), not the planet we all live on. Environmental concerns typically align with the higher, more altruistic levels of Maslow's hierarchy of needs. To be more specific, one could argue that the "self-esteem" stage could serve as a starting point for considering environmental protection, as suggested by Queiroz et al. (2020). As we can see from Table 1, despite some contradictory studies (Brechtin & Kempton, 1994; Dunlap & Mertig, 1995, 1997), the current body of literature in this field underscores a noteworthy proposition: with the increases of income levels, individuals exhibit heightened responsiveness to environmental issues (Abramson & Inglehart, 1995; Franzen & Meyer, 2010; Asai et al., 2022; Wroe, 2015), thus essentially characterizing the environment as a "luxury good" (Kayser & Grafstrom, 2016; Abu-Chadi & Kayser, 2017). As mentioned earlier, at the heart of discussions concerning evolving value sets lies individuals' transition from "materialist" concerns, such as economic security and housing, toward more "post-materialist" values, encompassing personal freedoms, quality of life, and environmental preservation, as theorized by Inglehart (1977 [1995]). On the other side, the literature on life satisfaction and the growth-environment trade-off has been widely discussing the effect of climate change or environmental degradation on the life satisfaction levels of individuals. There is a remarkable amount of research showing a negative correlation between environmental degradation and life satisfaction (Luechinger, 2009; Redhaz & Madison, 2008; Welsch, 2002, 2005; Silva et al., 2012). And several scientific studies have found that higher levels of life satisfaction are likely to increase pro-environmental behavior (Schmitt et al., 2018; del Saz Salazar & Pérez y Pérez, 2021; Nguyen et al., 2022). Literature on macro variables that impact perceptions of growth, and the environment contributes to our understanding of how higher level of income influences attitudes toward the environment. For example, Franzen and Meyer (2009) establish a positive correlation between higher income levels and heightened environmental interest. If an economy experiences insecure times, it results in lower support for environmentally conscious policies (Wroe, 2015), specifically in times of economic downturn (Kayser & Grafstrom, 2016; Abu-Chadi & Kayser, 2017; Kenny, 2020). This phenomenon can be interpreted because of the elevated importance

placed on securing a stable income, thereby underscoring the direct significance of fostering economic growth amid uncertain economic conditions.

Table 1. A Brief Summary of the Empirical Literature

Author(s)	Period, Data, Sample and Method	Main Finding(s)
Inglehart (1977)	1973, European Community survey, 5 Western countries, basic statistical methods, correlation analysis	Positive relationship between post-materialism and environmental concern. Young people tend to prioritize the environment.
Abramson & Inglehart (1994)	1990-1991, WWS, Eight West European nations, six European societies, OLS estimates	Societies in post-materialist stage and with high income level are more inclined to prioritize more altruistic values.
Brechin & Kempton (1994)	1992, Health of the Planet Survey, 24 countries, correlation analysis	High levels of economic development and education correspond with environmental concern, but not necessarily high levels of post-materialism.
Dunlap & Mertig (1995)	1992, International survey by Gallup International Institute, 24 countries, correlation analysis	National income is more often negatively related to citizen concern for the environment.
Dunlap & Mertig (1997)	1994, WWS and World Gallup Poll, 36 nations, correlation analysis	Negative relationship between pro-environmental attitudes and national wealth, as well as post-materialism.
Rehdanz & Maddison (2008)	1994, 1999 and 2004, German socio-economic panel, ordered probit and the hedonic model, contingent valuation method	High environmental degradation negatively affects life satisfaction.
Franzen & Meyer (2010)	1993 and 2000, International Social Survey Programme (ISSP) surveys, 20 countries, multilevel analysis.	Positive relationship between income, postmaterialistic attitudes, and environmental concerns. Education, gender, age, and political culture have effects on environmental attitudes.
Wong & Wan (2011)	2000 and 2005, Environmental Concern Survey, Hong Kong, multivariate regression analysis.	Sex, education, pro-environmental beliefs, government's performance in environmental protection, and media exposure play roles in shaping environmental concerns.
Kahn & Kotchen (2011)	January 2004-February 2010, , Google Data and National Survey, , The USA, Fixed effect OLS, Linear probability models	An increase in a state's unemployment rate reduced support for the USA's environmental policies.
Scruggs & Benegal (2012)	2006-2011, , The Pew Research Center's American Trends Panel Survey, the USA multivariate regression analysis	Unemployment and gas prices have a negative effect on climate change concerns.
Silva et al. (2012)	2006 and 2008, European Social Survey and Gallup World Poll, 41 countries OECD-non OECD countries, Multilevel logit model	Actual and perceived environmental quality have a significant effect on life satisfaction.
Wroe (2015)	2008, , American National Election Studies (ANES) survey, The USA, multivariate regression analysis	Economic insecurity is associated with a reduction in political trust, especially for governments' green policies.
Kayser & Grafstorm (2016)	2008-2011, , Comparative Study of Electoral Systems and Eurobarometer, 10 OECD countries, binary logit, and with conditional (fixed-effects) logit.	In times of economic downturn, voters tend to prioritize economic growth. Left-wing governments are punished more for environmental policies.
Smith & Mayer (2017)	2010, , Life in Transition Survey II, 35 countries multilevel models, logistic regression analysis	In the short-run, relative economic growth increases both climate change concern and willingness to pay for climate policy.
Abu-Chadi & Kayser (2017)	1998, 2001, 201, 2013, Surveys of Denmark in 1998, 2001 and 2011 and Germany in 2013, conditional logit model	In an economic downturn, voters prioritize growth. Those linking left-incumbent parties to pro-environment policies reward them more for a strong economy and penalize them more for a weak one.
Mildenberger & Leiserowitz (2017)	2008 and 2011, , American Mind surveys, the USA, fixed effect panel data model and logistic models	Political ideology is a significant factor in shaping attitudes toward climate change.
Schmitt et al. (2018)	2013, nationally representative survey data, Canada and The USA, multiple linear regression models	Pro-environmental behavior is positively related to life satisfaction and negatively related to perceived ecological threat.
Bakaki & Bernauer (2018)	2015-2016, Brazil representative survey, OLS and ordered logit model	No robust evidence for an economy-environment trade-off.
Kenny (2020)	2004 to 2014, WWS, The USA, Canada, European countries, Multilevel Models	A high unemployment rate has negative effects on the prioritization of the environment, while changing growth rates or GDP have none.
del Saz Salazar & Pérez y Pérez (2021)	2018, Spain, online self-design survey (undergraduate students), ordered probit regressions	Life satisfaction had a stronger effect on high-cost pro-environmental behaviors than on low-cost pro-environmental behaviors.
Nguye et al. (2022)	Vietnam, online survey questionnaire, quantitative research methods	Happiness has a positive effect on pro-environmental consumption behaviors.

Asai (2022)	2020-2022, Welcome Global Monitor 2020, the European Social Survey (Round 8), World Values Survey and EM-DAT, logistic models	When people face job losses or natural disasters, they're more likely to believe that environmental protection should come before economic growth and creating new jobs.
Escario et al. (2022)	2020, Eurobarometer, 26 countries OLS, Poisson Regression, and Negative Binomial II Regression	Women, young people, and elderly people in higher socioeconomic positions and with higher education are more inclined to favor long-term altruistic policies, aligning with post-materialist orientations.

Source: Compiled by Authors.

There is limited research on how Turkey perceives the trade-off between economic growth and environmental conservation. The available studies primarily focus on renewable energy choices and environmental awareness within the country, relying on self-designed surveys (Ozil et al, 2008; Jones et al, 2017). Only two of these studies offer a broader perspective on public sentiment towards environmental concerns. First, Ignatow (2005) delves into the analysis of two environmental movements and public opinion in Turkey, dating back to the early 1980s. He ultimately concludes that economic factors align more closely with dependency theory, as opposed to class conflict or post-materialism theories. Second, Korkmaz (2017) investigates public awareness and perceptions of climate change within the West Mediterranean Region of Turkey. The study found that women, married individuals, and those with primary and high school education exhibit a higher level of concern regarding climate change, while age and income did not emerge as significant determinants.

In this context, Turkey emerges as a significant and still unexplored case for examination. As an economically fragile country, the ruling party's strong emphasis on growth can be accepted as a defining factor. Notably, Turkey ratified the Paris Agreement on April 22, 2016, signifying a commitment to environmental objectives. Furthermore, there has been a notable rise in youth-led climate activism and the increasing number of environmental NGOs, indicating a growing environmental consciousness. To contribute to this flourishing topic, our present study aims to analyze determinants of individuals' inclinations concerning the growth-environment trade-off within the Turkish context. Using WVS Data, Wave 7 (2017–2021), we endeavor to contribute to the existing literature on the interplay between growth and environmental concerns in Turkey. While simultaneously controlling for demographic factors including age, sex, education level, employment status, number of children, religiosity, settlement type, as well as broader political orientations and specific party preferences, our investigation focuses on the influence of material well-being and life satisfaction as key factors at the individual level. In summary, Turkey's complex interplay between economic conditions, environmental consciousness, and individual well-being underscores the necessity for nuanced and context-specific policy approaches. Achieving a harmonious balance between economic growth and environmental sustainability remains a pivotal challenge, demanding continuous strategic planning and attention. The aim of the study is to offer valuable insights into the complex factors that influence how individuals perceive the trade-off between economic growth and environmental considerations. By doing so, we seek to question the conventional belief that the environment is a luxury good.

2. Data and Methodology

In order to analyze people's perceptions of the growth-environment dichotomy, this study uses the most recent dataset from Wave 7 (Edition 5) of the World Values Survey (WVS), which was conducted between 2017 and 2021. The WVS is a well-known and significant research initiative that focuses on examining the cultural, social, and political values of individuals from more than 60 countries and presents one of the largest cross-sectional individual levels of a great range of variables, which gives the researchers an opportunity to analyze individuals' attitudes from a macro-level perspective. Researchers and policymakers can better understand the interactions between culture, society, and politics thanks to the WVS's collection of data on a variety of subjects, including as political involvement, gender roles, religion, and social trust. This study primarily examines a dataset from a Turkish cohort of 1.935 participants, 975 males and 960 females, ranging in age from 18 to 95 years.

Our latent dependent variable under consideration is derived from responses to the question labeled as "Q.111" in the questionnaire: "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?" The options are:

1. Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs.
2. Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent.

We create a binary variable, denoted as "Environmental Priority" wherein the second option is assigned a value of 0, and the first option is assigned a value of 1, based on the choices made by individuals. For this examination, since the outcome variable is binary, it is suitable to use logit models to explore the potential connections between environmental priority and the variables that stand on their own. Binary logistic regression is used to model the conditional probability of a binary output variable Y, given a set of input variables X. The probability of Y=1 given X=x is modeled as:

$$P(Y=1|X=x) = \frac{1}{1 + e^{-(\beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_p X_p)}}$$

The input variables are represented by X, which is a vector that can include X_1 , X_2 , and so on up to X_p . The coefficients that represent the relationship between the input variables and the output variable are represented by β , which is a vector that can include β_0 , β_1 , β_2 , and so on up to β_p . The natural logarithm base, e, is used in the logistic function that transforms the linear combination of input variables and coefficients into a probability value. The coefficients (β) are estimated using maximum likelihood estimation, which involves finding the values of β that maximize the likelihood of the observed data. In summary, binary logistic regression models the probability of a binary outcome as a function of one or more input variables, using a logistic function to transform a linear combination of input variables and coefficients into a probability value (Gelman, 2008). To assess the relationship between variables, we employ logistic regression methodology, incorporating robust error estimation and accounting for region-fixed effects.

Table 1. Variables and Definitions

Question	Variable Name	Scale
Q111. 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?	Dependent variable	0 Ensuring economic growth. 1 Protecting the environment. (Binary, 0 for growth 1 for environmental priority)
Independent Variables		
Q49. How satisfied are you with your life as a whole these days?	Life Satisfaction	Binary (0-1) low-high
In the last 12 months, how often have you or your family, Q51 Gone without enough food to eat. Q52 Felt unsafe from crime in your home. Q53 Gone without medicine or medical treatment that you needed. Q54 Gone without a cash income. Q55 Gone without a safe shelter over your head.	Material well-being	Binary (0-1) low- high
Q173. Independently of whether you attend religious services or not, are you religious?	Religiosity	Binary (0-1) A religious person- Not a religious person
Q223. If there were a national election tomorrow, for which party on this list would you vote?	Political party	CHP, HDP, MHP, AKP, İYİ PARTY, OTHERS
Q240. In political matters, people talk of "the left" and "the right." How would you place your views on this scale?	Political view	(1-3), left-center-right
Q260. Sex of the Respondent	Sex	Binary (0-1) Male-female
Q261. Can you tell me your year of birth?	Age groups	<=30, 31-45, 45-60, 60 =>

Q274. Do you have any children?	Number of children	Number
Q275. What is the highest educational level that you have attained?	Education level	(1-3) primary-high school-university
Q279. Are you employed now or not? How many hours a week?	Employment status	employee, part-time, self-employed, retired
H1. Settlement type	Settlement	Binary (0-1) urban-rural

Source: Compiled by the author using World Values Survey.

The body of theoretical and empirical work in this field, emphasizes the idea that rising income levels tend to foster people's increased environmental consciousness (Inglehart, 1977; Asai et al., 2022; Franzen & Meyer, 2009; Wroe, 2015), effectively casting the environment in the role of a "luxury good" (Kayser & Grafstrom, 2016; Abu-Chadi & Kayser, 2017). From this perspective, the act of prioritizing the environment overgrowth becomes plausible during the post-materialistic phase experienced by both individuals and nations. To gauge this phenomenon, we utilize a pair of indicators. Firstly, we compile a composite index of "material well-being" by deriving insights from four specific questions as it seen in Table 1. By performing a straightforward computation of the response averages, we classify answers denoting "often" or "sometimes" as 0, signifying a lower degree of material well-being, whereas responses indicating "rarely" or "never" are allocated a value of 1, indicative of a higher level of material well-being. Given that "life satisfaction" encompasses various facets of one's existence, we regard this variable as a latent factor representative of the post-materialistic epoch. By adding this variable, we control what happens when an individual fulfills their materialistic needs and goes beyond the materialistic stage of living. We anticipate the similar effects of these two variables on prioritization growth: higher levels of material well-being and increased life satisfaction will likely lead to a greater tendency to prioritize environmental concerns, in line with the literature following Asai et al. (2022), Franzen & Meyer (2009) and Wroe (2015).

In this framework, the following hypotheses are evaluated:

Hypothesis 1: Higher levels of material well-being and life satisfaction are positively associated with a heightened inclination towards prioritizing environmental preservation in Turkey.

Hypothesis 2: Socio-economic and demographic factors have the potential to influence the trade-off decisions between economic growth and environmental preservation in Turkey.

Our analysis considers a diverse array of socio-demographic variables, including age (categorical variable), educational attainment (categorical variable), employment status (categorical variable), settlement type (binary variable), level of religiosity (binary variable), number of children (continuous variable), as well as party preference (categorical variable) and general political view (categorical variable). Understanding the relationship between political ideology (right-left, center) and individuals' propensity to prioritize either the environment or economic growth for the potential support of parties in Turkey holds significant importance. This is due to the fact that, even within the same ideological spectrum, political parties with differing ideological orientations may exhibit distinct stances on environmental preservation and economic expansion. Particularly noteworthy is the examination of whether the growth-oriented discourse consistently maintained by the ruling party in Turkey since the 2001 elections is perceived as a significant factor among potential supporters of this party. Given the nuanced interplay between political ideologies, environmental concerns, and economic priorities, investigating the subtle differentiations in party rhetoric becomes crucial, especially within the Turkish context. Through a detailed exploration of these dynamics, a deeper and more comprehensive understanding of the complex interplay among political affiliations, environmental concerns, and economic inclinations can be achieved. Specifically, we have constructed distinct models to assess both the broader political orientation and the party preference that respondents would express in the hypothetical context of an impending election. By employing this methodology, we aim to unravel the intricate dynamics between individuals' underlying ideological tendencies and their specific inclination towards a particular political party, as discerned from their responses to the question regarding their

hypothetical voting choice in an upcoming election. All the frequency statistics for the selected variables based on the literature have been laid out in detail in Table 2. Frequency tables display the values of a variable, weighted with the number of occurrences of each single value as well as the percentages. When the sample characteristics are evaluated, the number of individuals for each variable is sufficient to capture the possible behavioral differences between categories.

Table 2. Frequency table of Variables

Variable	Freq.	Percent	Valid	Cum.
Material well-being				
Low	1014	52.400	52.400	52.400
High	921	47.600	47.600	100.000
Life satisfaction				
Low	861	44.500	44.500	44.500
High	1074	55.500	55.500	100.000
Age				
<=30	601	31.060	31.060	31.060
31-45	609	31.470	31.470	62.530
45-60	668	34.520	34.520	97.050
60=>	57	2.950	2.950	100.000
Sex				
Male	975	50.390	50.390	50.390
Female	960	49.610	49.610	100.000
Settlement				
Urban	1408	72.760	72.760	72.760
Rural	527	27.240	27.240	100.000
Employment status				
Full time	690	35.660	35.970	35.970
Part time	655	33.850	34.150	70.130
Self employed	434	22.430	22.630	92.750
Retired	139	7.180	7.250	100.000
Religiosity				
Religious	542	28.010	28.010	28.010
Not religious	1393	71.990	71.990	100.000
Education level				
Primary school	1105	57.110	57.110	57.110
High school	472	24.390	24.390	81.500
University	358	18.500	18.500	100.000
Number of children				
0	771	39.840	39.840	39.840
1	320	16.540	16.540	56.380
2	478	24.700	24.700	81.090
3	207	10.700	10.700	91.780
4	94	4.860	4.860	96.640
5	40	2.070	2.070	98.710
6	20	1.030	1.030	99.740
7	4	0.210	0.210	99.950
9	1	0.050	0.050	100.000
Political view				
Left	419	21.650	21.650	21.650
Center	383	19.790	19.790	41.450
Right	1133	58.550	58.550	100.000
Political Party				
CHP	474	24.500	24.500	24.500
HDP	158	8.170	8.170	32.660
MHP	220	11.370	11.370	44.030
AKP	926	47.860	47.860	91.890
İYİ PARTY	95	4.910	4.910	96.800
OTHERS	62	3.200	3.200	100.000

Source: Author's calculations.

3. Empirical Results

We introduce four distinct models in our study. Table 3 displays the regression coefficients for the logistic regression analysis for these four models and the marginal effects for Models 3 and 4. To provide a clear explanation of the effects and to visually understand their magnitudes, Figure 1 displays the average marginal effects calculated for the variables of material well-being and life satisfaction. Model 1 examines the factors that influence environmental prioritization by considering both material well-being and a general political perspective. Model 2 focuses on estimating the impact of life satisfaction in conjunction with the general political view. In Models 3 and 4, we examine material well-being and life satisfaction separately. These models also consider people's specific party preferences, such as AKP, MHP, HDP, İYİ Party, and OTHERS, with CHP as the reference category. It is important to note that all the remaining variables are the same across all four models. Additionally, all four models incorporate fixed effects for Turkey's regions based on the Nomenclature of Territorial Units for Statistics (NUTS 2, 26 regions) classification to control unobserved heterogeneity and unexplained variations across different regions.

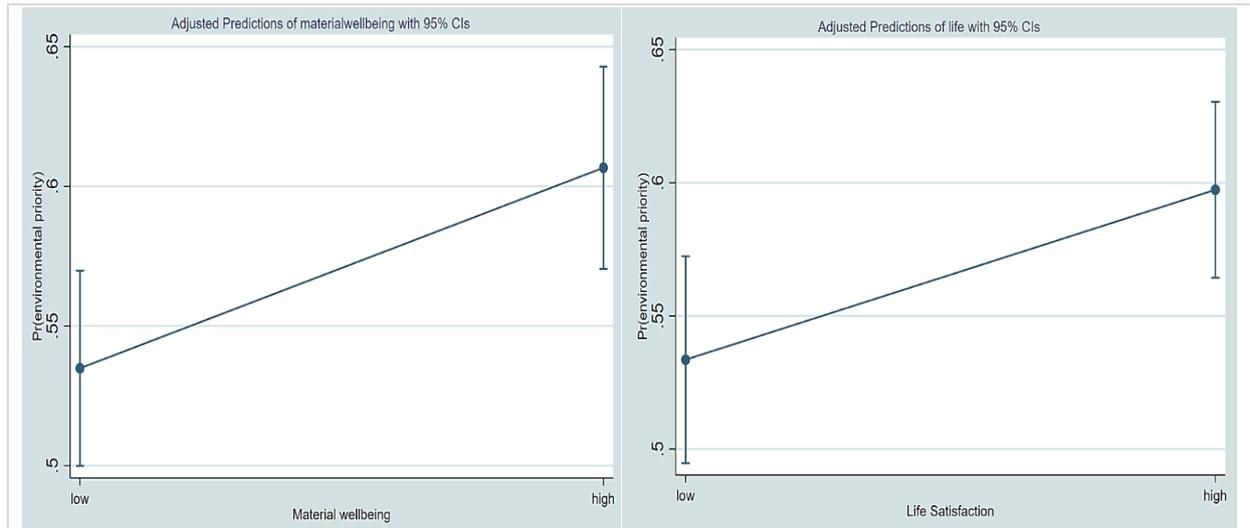
Marginal effects in logistic regression refer to the change in the probability of an event occurring (i.e., the dependent variable taking a particular value) as a result of a small change in one of the independent variables while holding all other variables constant. In other words, it measures the impact of a one-unit change in an independent variable on the probability of the outcome, considering the non-linear nature of the logistic function (Williams, 2012; Perraiillon, 2019). In this respect, we calculate the marginal effects to make more clear comments on the magnitude of the effects of specific variables. For material well-being, the coefficient represents the log-odds of the dependent variable changing from 0 to 1 when "material well-being" is "high" compared to the reference category ("low"). In Model 3, the marginal effect (dy/dx) for "high" is 0.059 ($p < 0.05$). In Model 4, the marginal effect (dy/dx) for "high" is 0.055 ($p < 0.05$). This means that, all else being constant, individuals with higher material well-being and life satisfaction have a higher probability of the event occurring compared to those with lower material well-being and life satisfaction. Individuals with higher life satisfaction have a 0.046 increase in the probability of the prioritized environment compared to those with low life satisfaction, and those with higher material well-being have a 0.059 increase in the probability of the prioritized environment. This finding is consistent with the notion in the literature that the environment could be considered a luxury good and that shifts in values may only occur with higher levels of material prosperity, as stated in Kayser & Grafstrom (2016) and Abu-Chadi & Kayser (2017) studies. To assess the relative impact of specific variables, namely material well-being and life satisfaction, we present the average marginal effects associated with these factors. It is noteworthy that when contrasting individuals characterized by a high level of material well-being and life satisfaction, those with elevated material well-being exhibit a greater likelihood of favoring environmental prioritization in comparison to individuals with high life satisfaction.

Surprisingly, despite the view that the younger generation is inclined to prioritize environmental protection (Inglehart, 1977; Dunlap & Jones, 2002; Escario et al., 2022), our study shows that older generations are more likely to support the environment over growth. Individuals aged 60 and above are more inclined to prioritize the environment compared to those under 30. In the literature, while there is a vast body of work suggesting that women exhibit greater environmental awareness, some studies, such as Tümer et al. (2023), have found no systematic differences between sex categories. Part-time workers and retirees show a higher likelihood of prioritizing the environment compared to those employed in full-time positions. The negative effect of right-wing ideology compared to the left in the base model, as well as support for the ruling party compared to CHP, has a significant negative impact on environmental prioritization. Contrary to expectations, we could not find any systematic difference between rural and urban populations.

Table 3. Summary of Regression Coefficients and Marginal Effects (Logistic Regression Analysis)

Dependent Variable: Environmental priority	Model (1) Base model	Model (2) Base model	Model (3)	Model (4)	Marginal Effects for Model 3 (dy/dx)	Marginal Effects for Model 4 (dy/dx)
Material well-being (ref: low)						
high	.294*** (.111)			.278** (.111)		0.059** (.024)
Life satisfaction (ref: low)						
high		.26** (.11)	.215** (.109)		.046** .023	
Age (ref: <=30)						
31-45	-.11 (.137)	-.121 (.136)	-.128 (.138)	-.117 (.138)	.027 (.029)	-.025 (.029)
45-60	.059 (.151)	.057 (.151)	.039 (.152)	.041 (.152)	.008 (.032)	.009 (.032)
60 = >	.839** (.342)	.855** (.344)	.806** (.345)	.791** (.344)	.158** (.062)	.155** (.062)
Sex (ref: male)						
female	-.074 (.1)	-.081 (.1)	-.07 (.101)	-.066 (.101)	-.015 (.021)	-.014 (.021)
Settlement (ref: urban)						
rural	.059 (.16)	.061 (.161)	.031 (.162)	.032 (.161)	.006 (.034)	.007 (.034)
Employment status (ref: full time employee)						
part-time employee	.59*** (.132)	.586*** (.131)	.528*** (.134)	.533*** (.134)	.112*** (.028)	.113*** (.028)
self-employed	.185 (.146)	.17 (.144)	.135 (.146)	.147 (.146)	.029 (.032)	.032 (.032)
retired	.577*** (.217)	.591*** (.218)	.539** (.216)	.523** (.214)	.115** (.045)	.111** (.044)
Religiosity (ref: religious)						
not religious	.256** (.125)	.245* (.125)	.328** (.128)	.341*** (.128)	.070*** (.028)	.073*** .027
Education level (ref: primary school)						
high school	.126 (.128)	.117 (.128)	.108 (.128)	.114 (.128)	.023 (.027)	.024 (.027)
university	.234* (.139)	.247* (.139)	.231* (.14)	.218 (.141)	.049* (.029)	.046 (.029)
Number of children	-.087** (.044)	-.085* (.044)	-.079* (.044)	-.081* (.044)	-.081* (.044)	-.017* .009
Political view (ref: left)						
center	-.048 (.169)	-.048 (.169)				
right	-.32** (.141)	-.344** (.141)				
Political party (ref: CHP)						
HDP			.093 (.231)	.111 (.233)	.019 (.047)	.022 (.047)
MHP			-.272 (.19)	-.245 (.19)	-.057 (.040)	-.051 (.040)
AKP			-.454*** (.15)	-.456*** (.149)	-.096*** (.031)	-.096*** (.031)
İYİ PARTY			.026 (.25)	-.013 (.25)	.005 (.051)	-.003 (.051)
OTHERS			-.453 (.306)	-.397 (.309)	-.096 (0.065)	-.084 (.066)
Constant	.428* (.248)	.465* (.243)	.53** (.251)	.485* (.253)		
Region fixed effect	YES	YES	YES	YES		
Observations	1918	1918	1918	1918		
Pseudo R ²	.107	.107	.109	.11		
Log-likelihood	-1173.197	-1173.931	-1170.597	-1169.378		
AIC	2428.394	2429.863	2429.195	2426.756		
BIC	2656.314	2657.783	2673.792	2671.353		

Source: Author's calculation. Note: dy/dx for factor levels is the discrete change from the base level.

Figure 1. Average marginal effects of material well-being and life satisfaction

Source: Author's calculation.

In the base models, the probability of supporting environmental protection increases with higher education levels, which is consistent with the literature suggesting that education universally promotes environmental awareness and neutrality towards economic growth. Furthermore, individuals with a university education are more likely to prioritize the environment compared to those with only a primary education. The observation that more religious individuals tend to prioritize economic growth over environmental protection can be attributed to a complex interplay of cultural, social, economic, and political factors. In many cases, economic growth is associated with improvements in living standards, job opportunities, and overall well-being. More religious individuals might prioritize economic growth to enhance their own and their communities' quality of life. Religious groups in certain regions may align with political parties or ideologies that emphasize economic growth. This alignment can influence the stance of religious individuals on various policy issues, including environmental protection. This research uncovers a noteworthy trend among people who have more children, showing a strong tendency to prioritize economic growth over environmental preservation. This inclination can be explained by their increased focus on immediate economic needs due to greater financial responsibilities and a more urgent requirement for basic needs like housing and food. The inclination for short-term economic gains emerges as a rational response to address the imperatives of sustaining larger households. Moreover, this preference for economic considerations is bolstered by widely accepted social and cultural norms. It is further intensified by political messages that emphasize the crucial importance of economic stability for ensuring the immediate welfare of their families and securing promising opportunities for future generations.

Conservatives are less likely to adopt environmentally friendly attitudes compared to liberals. Based on responses to the question of which political party they would vote for if an election were held, regression analysis for each political party reveals a significant difference between voters of the Republican People's Party (CHP) and the Justice and Development Party (AKP). Specifically, individuals considering voting for the AKP are more likely to prioritize economic growth compared to those considering voting for the CHP. Additionally, this information provides valuable insights into understanding why the ruling party in Turkey continues to adhere to a growth-centric rhetoric.

Upon revisiting the hypotheses, the empirical findings provide robust validation for the first hypothesis, namely, "Hypothesis 1: Higher levels of material well-being and life satisfaction are positively associated with a heightened inclination towards prioritizing environmental preservation in Turkey." This relationship is distinctly affirmed through empirical evidence. Conversely, the second hypothesis, "Hypothesis 2: Socio-economic and demographic factors possess the potential to exert an

influence on decisions pertaining to the trade-off between economic growth and environmental preservation in Turkey," receives partial support. In this context, significant factors such as age, education level, religiosity, employment status, number of children, and political affiliations emerge as substantial contributors, shedding light on both environmental concerns and preferences for economic growth. However, the analysis reveals that sex disparities and the urban-rural divide do not meaningfully explain the observed variations in perceptions.

GENERAL RESULTS AND DISCUSSION

This study revisits neoclassical perspective on environment or conventional environmentalism, which is often associated with post-materialistic values that prioritize self-expression and quality of life over material possessions. In this view, environment is a luxury good, and concerns for environment or prioritization of environment over growth can be possible after a certain income or life satisfaction level (Schlosberg & Craven, 2019). Utilizing the comprehensive dataset provided by the WVS Turkish cohort, which offers a multifaceted view of individuals' attitudes and beliefs across various dimensions, this research examines the determinants of individuals' perceptions concerning economic growth and environmental concerns in Turkey.

The findings of this research regarding material well-being and life satisfaction align with prior research, which suggests that individuals with higher material well-being and greater life satisfaction tend to prioritize the environment more than those with lower well-being and life satisfaction, as noted in works by Inglehart (1977), Abramson & Inglehart (1994), and Franzen & Meyer (2010). Our study, however, contradicts previous research in the Turkish context, as examined by Ignatow (2005) and Korkmaz (2017), where income and post-materialistic attitudes did not account for environmental concern. This discrepancy may be attributed to a cohort effect, given that Korkmaz's study encompassed 406 questionnaire responses from three specific cities (Antalya, Isparta, and Burdur), making it challenging to generalize the findings to the entirety of Turkey. Our research reveals that individuals aged 60 and above are more inclined to prioritize environmental considerations compared to those under 30, indicating a generational divergence in environmental priorities, contrary to the findings of Inglehart (1977), Dunlap & Jones (2002), and Escario et al. (2022), in which the younger generations prioritize the environment more. However, as suggested by Franzen (2004), this phenomenon is typically attributed to a cohort effect rather than a mere age-related trend. Surprisingly, our findings demonstrate no significant discrepancy in environmental prioritization between females and males, indicating that gender does not play a substantial role in shaping these attitudes. This contradicts international literature, where women are often reported to exhibit higher environmental concerns, as seen in studies by Tümer et al. (2023), Wong & Wan (2011), and Escario et al. (2022). It is widely accepted that education has a universal effect on prioritizing the environment over growth. In this study, individuals with a university education exhibit a greater inclination to prioritize the environment than those with only a primary education, suggesting a link between higher education and heightened environmental concerns, in line with findings by Franzen & Meyer (2010), Brechin & Kempton (1994), and Escario et al. (2022). In terms of political view, liberals show a stronger tendency to prioritize environment over growth compared to conservatives, underscoring an ideological division in attitudes towards environmental issues, as evidenced by several important studies by Mildemberger & Leiserowitz (2017), Franzen & Meyer (2010), Wroe (2015), Kayser & Grafstorm (2016), and Mildemberger & Leiserowitz (2017). Moreover, political party preferences play a role, with individuals considering voting for the Justice and Development Party (AKP) exhibiting a higher inclination towards prioritizing economic growth compared to those voting for the Republican People's Party (CHP). This sheds light on why the ruling party in Turkey continues to emphasize economic growth despite growing environmental concerns. Regarding employment status, part-time workers and retirees display a greater likelihood of prioritizing the environment over full-time employees, potentially attributed to differing time commitments and perspectives, in line with findings by Kenny (2020). Drawing on the suggestions of Dietz et al. (1998), the study also considers settlement type, revealing no statistically significant difference in the prioritization of environment versus growth

based on rural-urban classification in Turkey. However, religiosity emerges as a notable factor, with non-religious individuals showing a greater inclination towards prioritizing the environment compared to their religious counterparts, suggesting a potential influence of religious beliefs on environmental attitudes. Additionally, as the number of children increases, individuals tend to place greater emphasis on economic growth, reflecting short-term financial security concerns associated with family responsibilities.

The investigation sheds light on the factors that influence individual viewpoints regarding the trade-off between economic growth and environmental concerns in Turkey through the application of logistic models. Based on our research findings, we offer distinct policy implications that hold relevance for Turkey's journey towards balanced development and effective environmental management. The validation of our first hypothesis emphasizes the significance of bolstering material well-being and life satisfaction to cultivate a populace with a stronger inclination toward environmental preservation. This underscores the importance of policies that prioritize improving living standards and endorsing sustainable practices. While our second hypothesis received partial support, it underscores the need for targeted interventions based on socio-economic and demographic factors. Tailored educational initiatives, vocational training, and green employment opportunities could effectively address this aspect. Additionally, our results advocate for comprehensive education and awareness campaigns that integrate cultural, religious, and political dimensions to foster deeper engagement with environmental issues. To ensure inclusive policy formulation, engaging citizens from diverse backgrounds in decision-making processes is recommended. Lastly, the imperative of formulating integrated regional strategies that account for the distinct challenges encountered in various areas while encompassing region-specific determinants becomes evident. This approach is crucial not only for ensuring sustainable growth but also for safeguarding the environment and fostering contributions to circular economic design. Collectively, these policy implications can provide a coherent and strategic roadmap that Turkey can follow to achieve a harmonious progression in its economic endeavors while concurrently prioritizing environmental preservation.

It is important to acknowledge certain limitations in this study. The omission of region-specific variables, such as unemployment, GDP per capita, mean years of schooling, and various aspects of inequalities unique to different regions, represents a notable gap in our analysis. In addition, the fact that our study primarily concentrates on Turkey limits the extent to which our findings can be applied to a broader context. To gain a more comprehensive understanding, a comparative analysis involving countries with similar political structures would provide a broader context and enhance the external validity of our results. Lastly, maybe the most important limitation in this study lies in its reliance on the neoclassical mainstream view of environmentalism. As discussed in Martinez-Alier (1995), the question can be asked, "What if a country is too poor to be green?" Martinez-Alier (1995) emphasized that evidence for the "environmentalism of the poor" cannot come from surveys or opinion polls; we should look more deeply into the roots of environmentalism in the Third World. If in rich countries one perceives increasing environmental awareness, this might be because wealth goes along with increasing depletion of resources and pollution of the environment, which is stated as "the effluents of affluence." In this respect, considering Turkey's position in the world economy, further research should empirically concentrate on the historical roots of Turkish environmentalism from a heterodox perspective.

Considering Turkey's enduring commitment to fostering economic growth despite the ongoing environmental challenges, this study provides a valuable lens through which to comprehend the nuanced perspective of civil society. The study's findings hold the potential to inform policymakers, activists, and researchers engaged in the realm of sustainable development. By elucidating the factors that mold individuals' perceptions regarding the trade-off between economic growth and environmental concerns in Turkey, these results can contribute to the formulation of targeted interventions, awareness campaigns, and policy strategies that encompass the diverse characteristics and perspectives of individuals within the country.

Compliance with Ethical Standard

Conflict of Interest: There is no conflict of interest between the authors or any third-party individuals or institutions.

Ethics Committee Approval: Ethics committee approval is not required for this study.

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