

Research Article

Linking Ethical Leadership to Social Justice Outcomes: The Moderating Influence of Environmental Sustainability Practices

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ABSTRACT

Ethical Leadership (EL) is crucial for achieving Social Justice Outcomes (SJO) in environmentally vulnerable communities, yet the moderating role of Environmental Sustainability Practices (ESP) remains underexplored. This study examines the effect of EL on SJO and the moderating role of ESP in this relationship. The study sampled 452 respondents, including local government officials, traditional leaders, community opinion leaders, and residents from flood-prone coastal areas, informal settlements, and environmentally degraded communities. Data were collected through structured questionnaires and analyzed using Structural Equation Modelling (SEM) with SmartPLS 4 and bootstrapping techniques to assess direct and moderating effects. Results reveal that EL significantly promotes SJO through fairness, transparency, inclusion, accountability, and respect for rights. EL also positively influences ESP by encouraging conservation, efficiency, recycling, compliance, and innovation. Furthermore, ESP strengthens the relationship between EL and SJO, indicating that structured sustainability practices support ethical decision-making for equitable outcomes. Findings support Stakeholder Theory, emphasizing attention to diverse stakeholders, and Institutional Theory, highlighting formal structures for effective leadership. The study guides policymakers and community institutions in integrating ethical leadership with organized environmental practices to enhance justice and sustainability.

KEYWORDS:

Ethical Leadership, Social Justice Outcomes, Environmental Sustainability Practices, Stakeholder Theory, Institutional Theory, Ghana

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The concept of Social Justice Outcomes (SJO) has become increasingly popular in environmental governance, especially for communities that continue to face disproportionate exposure to environmental degradation and limited access to key resources (Buijs et al., 2024; Gosselin & Gauquelin, 2025). Social justice outcomes are defined as the equal distribution of environmental benefits and burdens, equal treatment in policymaking, and equal participation in decision-making processes that affect community well-being (Bennett et al., 2023). The most vulnerable groups, particularly those in the developing world, are often faced with environmental challenges such as pollution, resource depletion, and climate change that undermine their lives and health (UNEP, 2025). To address these issues, leadership strategies that emphasize fairness, responsibility, and ethical accountability are important for addressing environmental and social challenges.

Ethical Leadership (EL) has become an influential factor in shaping social justice outcomes, as it emphasizes integrity, transparency, and equity in organizational and institutional behavior (Alhaidan, 2025). Ethical leaders also behave in normatively appropriate ways, advocate ethical norms, and influence their followers to do so in a manner that supports justice and equity (Al Halbusi et al., 2021). These leaders are in a position to ensure that moral considerations guide decisions that affect communities, thereby limiting inequality and strengthening trust among stakeholders (Taamneh et al., 2024). EL promotes the fair use of environmental resources, proper waste management practices, and community participation in environmental management in environmentally vulnerable settings (Elkhweildi et al., 2025).

There is empirical evidence suggesting that EL is a primary factor in attaining social justice outcomes. As Páez Gabriunas (2023) found, ethical leaders enhance equity in organizational processes, which, when expanded to community-level interactions, is reflected in better societal outcomes. Crawford et al. (2025) also found that EL positively affects the trust of stakeholders and helps to make ethical decisions that favor marginalized groups. In the environmental context, ethical leaders ensure the responsible distribution of resources and prevent vulnerable groups from being overburdened by environmental hazards (Abraham et al., 2025). Leaders can impact institutions to be guided by the principles of justice and equality in their practices through ethical guidance and accountability (Limboire et al., 2025).

Environmental Sustainability Practices (ESP) are organizational and institutional efforts that are employed to preserve natural resources, reduce environmental degradation, and establish a long-term ecological balance (Gomes et al., 2024). These are waste minimization, energy savings, pollution reduction, and sustainable resource management. ESP can be a tool that helps disclose ethical standards as concrete environmental and social outcomes (Tennakoon et al., 2024). Companies that embrace high levels of sustainability not only help protect the environment but also enhance the future quality of life of communities exposed to environmental challenges (Chege & Wang, 2020).

ESP may moderate the relationship between EL and SJO by either reinforcing or diluting the impact of ethical leadership on community outcomes. When sustainability practices are long-standing, ethical leadership is more likely to yield positive social justice outcomes, as environmental efforts are implemented in ways that ensure all parties involved are treated equally (AlHares, 2025). Ethical leaders working in such systems can ensure that sustainability activities

address the needs of vulnerable groups, thereby improving fairness and inclusiveness (Obasa, 2025). On the other hand, without an effective ESP, achieving the intended social justice might not be a complete success, as environmental initiatives might not be organized or consistent.

Environmental issues, including unauthorized mining, deforestation, and pollution, have also become a concern in environmentally susceptible communities in Africa, such as Ghana, with regard to the issue of justice and fairness in the allocation of resources (Hilson, 2017). Such challenges tend to have a disproportionate impact on rural and low-income groups of people and result in disparities in health, income, and access to clean environments. Fairness in environmental decision-making can be supported by ethical leadership in governmental and organizational institutions that develop policies that address the needs of marginalized groups (Dahiya et al., 2025). Nonetheless, the success of this kind of leadership depends on how sustainably environmental sustainability is entrenched in institutional structures.

This research has a theoretical basis on the Stakeholder Theory and the Institutional Theory. The Stakeholder Theory holds that organizations owe a broad set of stakeholders, such as communities impacted by environmental decisions, and that ethical leadership means these interests are taken into account when making decisions (Freeman, 2010). In this light, EL encourages equity and responsibility by balancing the interests of different stakeholder groups, hence improving social justice records. In contrast, the Institutional Theory describes how formal structures, norms, and practices shape organizational behavior (Scott, 2013). It indicates that the effectiveness of ethical leadership is reinforced by well-established environmental sustainability practices, which can provide a framework for executing ethical decisions.

The empirical research is in support of the combination of these theories in the explanation of the relationship between EL, ESP, and SJO. Kim and Thapa (2018) found that ethical leadership strengthens corporate social responsibility efforts, which, in turn, strengthen community welfare and equity. On the same note, Ahmad et al. (2024) and Testa et al. (2018) showed that organizations with excellent environmental sustainability practices achieve enhanced social outcomes through the systematic and consistent implementation of environmental policies. Besides, Al Halbusi et al. (2024) stated that ethical leaders can enhance society's welfare through responsible leadership practices that prioritize stakeholders' interests and justice.

The study contributes both theoretically and practically by demonstrating that Ethical Leadership (EL) positively influences Social Justice Outcomes (SJO) in environmentally vulnerable communities, while Environmental Sustainability Practices (ESP) strengthen this relationship. The study extends existing literature by showing how structured sustainability practices enhance the effectiveness of ethical leadership in promoting fairness, inclusion, and equity. Theoretically, the findings support Stakeholder Theory and Institutional Theory by illustrating that ethical leadership provides moral direction, whereas environmental sustainability practices facilitate the consistent implementation of ethical decisions and socially responsible actions. In practice, the study provides policymakers, community leaders, and environmental institutions with insights into integrating ethical leadership and sustainability initiatives to reduce inequalities, promote social justice, and improve community well-being.

Literature Review

Stakeholder Theory and Ethical Leadership (EL)

The Stakeholder Theory can be used to describe how ethical leadership facilitates the achievement of social justice by ensuring that the interests of all stakeholders, especially vulnerable communities, are taken into account in decision-making (AlHares, 2025). Ethical leadership focuses on fairness, accountability, and transparency, which promote equitable treatment of stakeholders by organizations and social and environmental inequalities (Alkhadra et al., 2023). By acting ethically, leaders gain the trust of communities and ensure that the impact of environmental decisions does not disproportionately affect disadvantaged groups (Hill, 2017). This practice helps in achieving the social justice outcomes through inclusive participation, equal distribution of resources, and responsible environmental governance.

In developing countries like Ghana, environmental issues disproportionately affect communities, underscoring the need for stakeholder-based leadership. According to Ahmed et al. (2024), ethical leadership enhances community involvement and makes environmental policies more responsive to the needs of affected communities. The principles of Stakeholder Theory are supported when sustainability practices are integrated into organizational systems, as they enhance ethical leaders' capacity to deliver fair and inclusive outcomes.

Institutional Theory and Leadership within Sustainability Structures

The Institutional Theory focuses on the idea that organizational behavior is determined by formal structures, policies, and norms that govern decision-making (Scott, 2013). In this understanding, environmental sustainability practices denote institutionalized structures that advance ethical leadership in realizing social justice outcomes (Tunji-Olayeni et al., 2025). Ethical leaders can work more efficiently when sustainability structures are in place that foster consistency, accountability, and compliance with environmental standards (Testa et al., 2018). These frameworks ensure that ethical principles are translated into actionable steps that can be used to support communities, especially those vulnerable to environmental impacts.

The sustainability practices of the environment are institutional processes that strengthen the effectiveness of ethical leadership. Companies that incorporate sustainability into their activities are better positioned to address challenges such as pollution, resource allocation, and environmental conservation in ways that foster fairness and equity (Galleli & Amaral, 2026). Ethical leaders in such institutions can help make environmental choices that reduce disparities and enhance community well-being. On the other hand, without well-established institutional frameworks, the impact of ethical leadership on social justice outcomes can be minimal due to inconsistent implementation and accountability.

The Institutional Theory is relevant in explaining the relationship between EL, ESP, and SJO with empirical evidence. Herold (2018) found that companies that have developed sustainability policies achieve superior social outcomes through organized environmental programs. In the same manner, Katou and Kafetzopoulos (2025) reported that leadership effectiveness in enhancing society's welfare is enhanced by institutional norms that emphasize responsibility and ethics. Tetteh et al. (2025) and Amoako et al. (2021) also found that, in Ghana, resource allocation inequalities

are driven by weak institutional enforcement of environmental regulations, underscoring the need to introduce sustainability practices into governance systems.

Empirical Review and Hypotheses

EL and SJO

Empirical literature has shown that EL can play a significant role in SJO because of its fairness, justice, and ethical behavior in decision-making. [Al Halbusi et al. \(2020\)](#) found that EL increases employees' ethical conduct through the influence of organizational justice, suggesting that fairness and integrity at the top are translated into fairness and equity within and beyond the organization. [Penney \(2023\)](#) highlighted that ethical leadership enhances social justice because it is inclusive, accountable, and treats stakeholders equally, especially marginalized groups. The research, however, was more theoretical and not empirically validated in the environmentally vulnerable community. This relationship is further supported by empirical evidence. [Al Halbusi et al. \(2021\)](#) showed that EL affects employees' ethical behavior through their understanding of justice, although the research was conducted in organizational contexts and did not account for extensive societal consequences. Equally, [She et al. \(2023\)](#) found that EL minimizes organizational silence by promoting fairness and open communication, thereby fostering participation and voice, which are critical to the realization of SJO. Although these contributions have been made, studies that have been done have mainly focused on internal organizational impacts and little on justice implications in the community. These results indicate that EL improves SJO through fostering equity, openness, and stakeholder engagement.

H₁: *EL has a significant effect on SJO.*

ESP and SJO

Studies have shown that ESP contributes to SJO by promoting environmentally friendly actions and fostering sustainability. [Hameed et al. \(2023\)](#) found that EL enhances environmental performance through green technology innovation and green IT capital, suggesting that ethical leaders promote investments that respect the environment. Nevertheless, the research was conducted with the technological aspect in mind and did not examine the broader sustainability issues across various sectors. As stated by [Rihal et al. \(2025\)](#), EL enhances environmental performance through green organizational identity and culture, indicating that environmental practices are driven by ethical values; however, the study was restricted to particular organizational settings.

Other investigations support such results. As noted by [Boeske \(2023\)](#), leadership strategies grounded in ethics promote sustainability through their advocacy of responsible environmental practices, but the research was a review rather than empirical. According to the study by [Ogaga et al. \(2023\)](#), EL improves sustainability in agro-allied companies, especially in environments with uncertainty, though the researchers did not identify specific sustainability practices. The report by [Fatoki \(2020\)](#) also revealed that ESP enhances sustainable performance in SMEs, but it was not specifically focused on ESP. These results suggest that the ESP facilitates SJO through ethical direction, organizational culture, and innovation in environmental practices.

H₂: *ESP has a significant effect on SJO.*

ESP as a Moderator Between EL and SJO

There is empirical evidence suggesting that ESP can reinforce the connection between EL and SJO by offering a model through which ethical values can be translated into societal outcomes. The study by [Saleem et al. \(2020\)](#) supported the idea that EL improves employee green performance through mechanisms that foster environmental responsibility, meaning that sustainability practices reinforce ethical leadership performance. However, the authors studied employee-level performance rather than social justice outcomes at a larger level. It was shown that EL affects social sustainability through ethical climate, and the strength of this effect is moderated by mediating factors, but environmental sustainability practices were not directly tested ([Santiago-Torner et al., 2025](#)). Additional support is given in further studies. Environmentally oriented EL has been demonstrated to enhance employee performance through engagement and communication ([Elkhweildi et al., 2025](#)); hence, it is possible to suggest that sustainability-oriented practices enhance the effectiveness of leadership. [Rihal et al. \(2025\)](#) also found that EL encourages environmental performance through organizational culture, which can lead to better societal outcomes when aligned with societal needs. Although this has been identified, there is a paucity of research that directly examines the moderating effect of ESP on the EL-SJO relationship, especially in environmentally susceptible communities. These findings suggest that ESP has the potential to complement the role of EL in SJO by ensuring that ethical choices are made through systematic, consistent environmental practices.

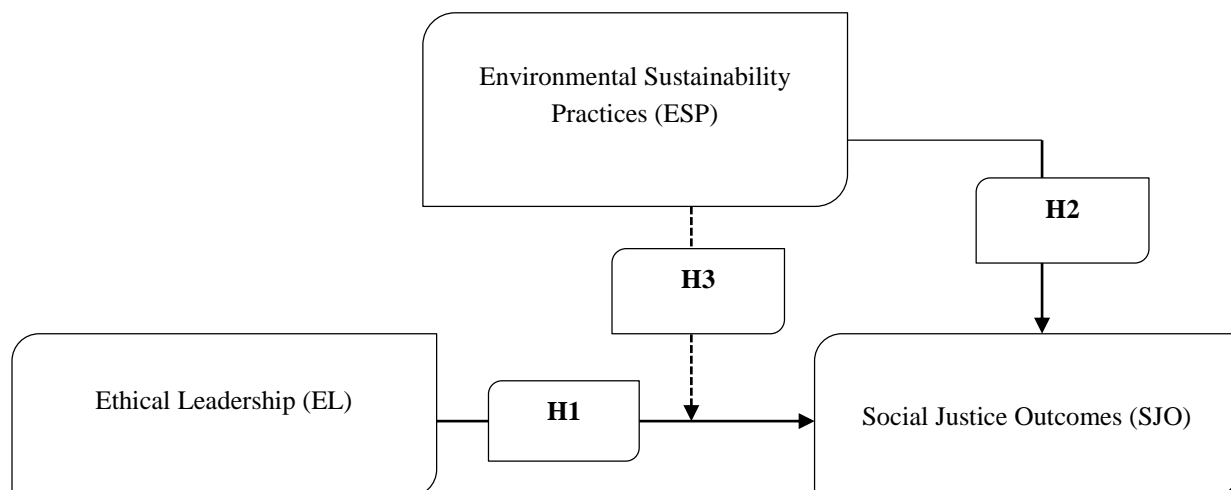
H₃: *ESP significantly moderates the relationship between EL and SJO.*

Conceptual Framework

The study's conceptual framework centres around three primary constructs: EL (the dependent variable), ESP (the moderating variable), and SJO (the independent variable). A literature review informed the refinement of these constructs in [Figure 1](#).

Figure 1

Conceptual Framework Diagram



Method

Research Design and Research Approach

The research design used in this study is a quantitative, cross-sectional explanatory research design to test the impact of EL on SJO within environmentally vulnerable groups with ESP as a moderating variable. The explanatory design assists in testing the direct and moderating effects through statistical estimation, and the study can ascertain how EL affects SJO across different levels of ESP. The research adheres to the positivist paradigm, which prioritizes objectivity, empirical measurement, and the extrapolation of results from quantitative data. Data analysis was performed using SmartPLS 4 to determine the direct effect of EL on SJO and the moderating role of ESP.

Population, Sampling Method, and Sample Size

The target population for this study consisted of environmentally vulnerable groups and key stakeholders in Ghanaian communities affected by environmental challenges such as flooding, pollution, coastal erosion, deforestation, and poor waste management systems. These communities included flood-prone areas, informal settlements, coastal communities, and environmentally degraded regions affected by both natural and human activities. The study population further comprised local government officials, assembly members, traditional leaders, community opinion leaders, personnel from environmental protection agencies, non-governmental organisations (NGOs), community-based organisations (CBOs), household heads, youth representatives, and small business operators whose livelihoods are directly affected by environmental conditions and leadership practices.

The study employed a stratified random sampling technique to ensure proportional representation of the various stakeholder categories within the selected communities. The strata were developed based on stakeholder classifications, including government representatives, environmental organizations, community leaders, and residents. Respondents within each stratum were selected randomly to minimize sampling bias and improve representativeness.

The minimum required sample size was determined using the Raosoft sample size calculator at a 99% confidence level and a 5% margin of error, which produced a minimum sample size of 363 respondents. To enhance the reliability and robustness of the study findings and to account for possible non-response or incomplete questionnaires, the sample size was increased by approximately 40%, following the recommendation of [Israel \(1992\)](#). Consequently, a total of 508 questionnaires were distributed to respondents across the selected communities.

Of the 508 questionnaires distributed, 471 were successfully retrieved. After data screening and removal of incomplete responses, 452 valid questionnaires were retained for the final analysis, representing an effective response rate of 88.98%. This response rate was considered adequate for Structural Equation Modeling (SEM) analysis. Before the main survey, a pilot study involving 51 respondents was conducted to assess the clarity, reliability, and validity of the research instrument. Primary data were subsequently collected over three months using both online and field-based questionnaire administration methods.

Measures

A structured questionnaire was used as the primary instrument for data collection. The questionnaire was developed based on the study's main constructs: Ethical Leadership (EL), Social Justice Outcomes (SJO), and Environmental Sustainability Practices (ESP).

Ethical Leadership (EL) was measured using five indicators: integrity (EL1), fairness (EL2), accountability (EL3), transparency (EL4), and honesty (EL5). These items were adapted from the works of Yukl et al. (2013) and Kalshoven et al. (2011). The indicators capture the moral values and ethical behaviors of leaders that influence trust, fairness, and responsible governance within communities.

Social Justice Outcomes (SJO) were measured using equity (SJO1), inclusion (SJO2), equality (SJO3), rights (SJO4), and fairness (SJO5). These measures were adapted from Rawls (1971). The indicators assess the extent to which communities experience fair, inclusive, and equitable social and environmental outcomes.

Environmental Sustainability Practices (ESP) were measured using conservation (ESP1), efficiency (ESP2), recycling (ESP3), compliance (ESP4), and innovation (ESP5). These indicators were adapted from Tennakoon et al. (2024) and Cowan et al. (2010). The measures reflect organized environmental practices that support sustainability, environmental protection, and long-term community well-being.

All items were measured using a five-point Likert scale ranging from 1 = Strongly Disagree to 5 = Strongly Agree to indicate the degree of respondents' agreement with each statement. To ensure content validity and contextual appropriateness, the questionnaire was reviewed by academic experts in environmental management and public policy, as well as practitioners involved in sustainability and community development. Their feedback helped improve the clarity, relevance, and suitability of the measurement items for the study context.

Data Analysis Technique

SmartPLS 4 was used to perform data analysis. Descriptive statistics, correlation analysis, and measures of construct reliability and validity were involved in the analysis. The impact of EL on SJO and the moderating effect of ESP were estimated using SEM and tested with the help of bootstrapping with 5,000 resamples. The review aimed to establish the effects of EL on SJO and the reinforcing or weakening effects of ESP on SJO in environmentally vulnerable communities.

Results

This section presents the results of the data analysis. Descriptive statistics and SEM using SmartPLS 4 were employed to test the proposed hypotheses. Of the 508 questionnaires distributed, 471 were retrieved and usable, yielding a response rate of 92.7% and an adequate sample for SEM analysis.

Demographic Characteristics of Respondents

As displayed in Table 1, a total of 471 valid responses were obtained, with 268 (56.9%) males and 203 (43.1%) females, indicating a fairly balanced gender distribution. The majority of respondents were within the 26–35 years (33.5%) and 36–45 years (28.0%) age groups, showing that participants are largely economically active. In terms of education, most respondents held a bachelor's degree

(40.8%), followed by a diploma (22.9%) and postgraduate qualifications (18.3%), indicating an adequate educational background. Regarding the respondent category, residents/household heads (27.4%) and community leaders (17.2%) formed the largest groups, reflecting diverse stakeholder representation. For experience or residence, 37.6% had over 10 years, 37.4% had 6–10 years, and 25.1% had less than 5 years, suggesting strong familiarity with community conditions.

Table 1
Demographic Characteristics of Respondents

Demographic Variable	Category	Frequency	Percentage (%)
Gender	Male	268	56.9
	Female	203	43.1
Age Group	18–25 years	72	15.3
	26–35 years	158	33.5
	36–45 years	132	28.0
	46–55 years	74	15.7
	Above 55 years	35	7.4
Educational Level	Basic/Secondary	64	13.6
	Diploma	108	22.9
	Bachelor's Degree	192	40.8
	Postgraduate	86	18.3
	Professional/Other	21	4.5
Category of Respondents	Local Government Officials	74	15.7
	Traditional Leaders	52	11.0
	NGO/Environmental Officers	69	14.6
	Community Leaders	81	17.2
	Residents/Household Heads	129	27.4
	Youth/Small Business Operators	66	14.0
Years of Experience / Residence	Less than 5 years	118	25.1
	6–10 years	176	37.4
	Above 10 years	177	37.6

Factor Loadings

As shown in [Table 2](#), all indicators loaded strongly on their constructs, ranging from 0.812 to 0.911, exceeding the .70 threshold ([Hair et al., 2021](#)). This confirms that EL, ESP, and SJO are well measured.

Construct Reliability and Validity

The reliability and validity of the measurement model were assessed using Cronbach's alpha, composite reliability, outer loadings, and Average Variance Extracted (AVE). The results presented in [Table 2](#) indicate that all constructs satisfied the recommended thresholds for internal consistency reliability and convergent validity.

The Cronbach's alpha (α) values for Ethical Leadership (.94), Environmental Sustainability Practices (.91), and Social Justice Outcomes (.93) were all above the acceptable threshold of 0.70 recommended by [Bagozzi and Yi \(1988\)](#), indicating high internal consistency among the measurement items. Similarly, the composite reliability values (ρ_c) for all constructs ranged

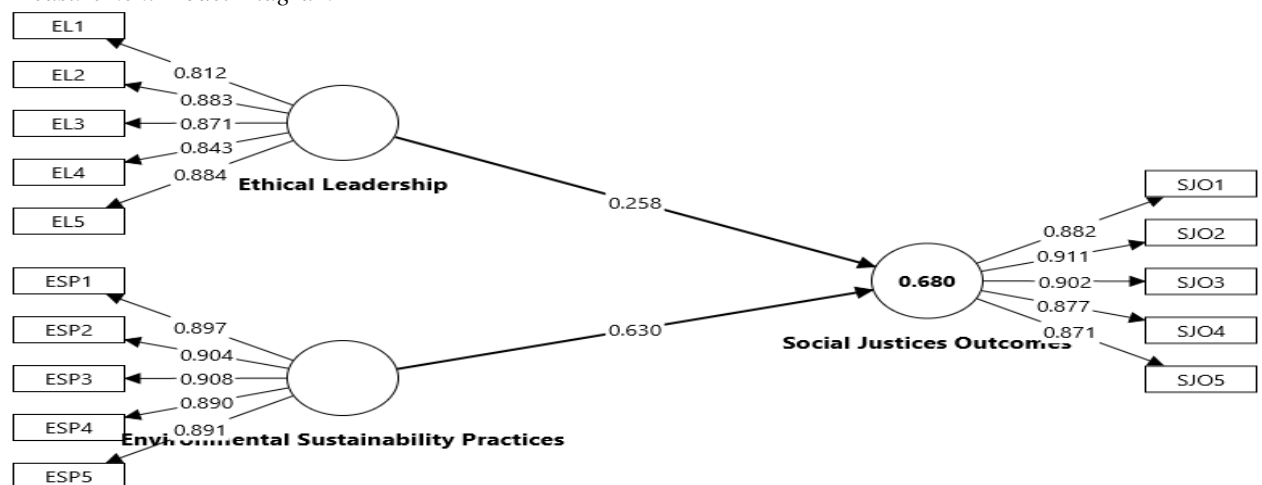
from .93 to .95, exceeding the recommended minimum value of .70, thereby confirming construct reliability.

In addition, the outer loadings of all indicators were above .80, demonstrating that the observed variables adequately represented their respective latent constructs (See Figure 2). The AVE values for Ethical Leadership (.80), Environmental Sustainability Practices (.73), and Social Justice Outcomes (.79) also exceeded the recommended threshold of .50, confirming convergent validity. These findings suggest that the measurement model possesses adequate reliability and validity for subsequent structural model analysis.

Table 2
Construct Reliability and Validity

Indicators	Outer loadings	α	(rho_a)	(rho_c)	AVE
Ethical Leadership		.94	.94	.95	.80
EL1	.81				
EL2	.88				
EL3	.87				
EL4	.84				
EL5	.88				
Environmental Sustainability Practices		.91	.91	.93	.73
ESP1	.89				
ESP2	.90				
ESP3	.90				
ESP4	.89				
ESP5	.89				
Social Justices Outcomes		.93	.93	.95	.79
SJO1	.88				
SJO2	.91				
SJO3	.90				
SJO4	.87				
SJO5	.87				

Figure 2
Measurement Model Diagram



Multicollinearity

As shown in Table 3, the VIF values range from 2.02 to 2.99, which are below the 5.0 threshold recommended by Diamantopoulos and Siguaw (2006), indicating the absence of multicollinearity. This further confirms construct independence and supports stable model estimation (Kock & Lynn, 2012).

Table 3
Multicollinearity (VIF Values)

Indicators	VIF
EL1	2.06
EL2	2.04
EL3	2.66
EL4	2.36
EL5	2.16
ESP1	2.32
ESP2	2.71
ESP3	2.82
ESP4	2.16
ESP5	2.21
SJO1	2.16
SJO2	2.02
SJO3	2.66
SJO4	2.05
SJO5	2.99

Discriminant Validity (Fornell–Larcker Criterion) and HTMT Ratio

Discriminant validity was assessed using both the Fornell–Larcker criterion and the Heterotrait–Monotrait (HTMT) ratio. As presented in Table 4, the square roots of the AVE values, shown along the diagonal of the Fornell–Larcker matrix, were greater than the inter-construct correlations, indicating adequate discriminant validity (Fornell & Larcker, 1981). In addition, all HTMT ratios were below the recommended threshold of .90, further confirming that the constructs were empirically distinct from one another.

Table 4
Discriminant Validity Assessment (Fornell–Larcker Criterion and HTMT Ratios)

Constructs	ESP	EL	SJO	HTMT Ratio
ESP	.89			
EL	.66	.88		.72
SJO	.80	.67	.85	.81 (SJO–ESP) / .73 (SJO–EL)

Model Fit Analysis

As shown in Table 5, model fit is acceptable with SRMR = .03 (< .08) (Hu & Bentler, 1999) and NFI = .93 (> .90), indicating good fit. The d_ULS (.17) and d_G (.15) values further support model adequacy (Dijkstra & Henseler, 2015; Hair et al., 2019).

Table 5
Model Fit Analysis

Fit summary	Saturated model	Estimated model
SRMR	0.03	0.03
d_ULS	0.17	0.17
d_G	0.15	0.15
Chi-square	500.31	500.31
NFI	0.93	0.93

Coefficient of Determination (R^2) and Effect Size (f^2)

As presented in Table 6, the coefficient of determination (R^2) results indicate that Ethical Leadership and Environmental Sustainability Practices jointly explained 68.0% of the variance in Social Justice Outcomes, with an adjusted R^2 value of .67. This suggests that the model possesses substantial explanatory power in predicting social justice outcomes within environmentally vulnerable communities.

The effect size (f^2) results further show the individual contribution of each predictor construct to Social Justice Outcomes. Environmental Sustainability Practices recorded a large effect size ($f^2 = .69$), indicating a strong contribution to variations in Social Justice Outcomes. Ethical Leadership also demonstrated a considerable effect size ($f^2 = .41$), suggesting that it significantly influences Social Justice Outcomes. According to Cohen's (2013) guidelines, f^2 values of .02, .15, and .35 represent small, medium, and large effect sizes, respectively. Since the obtained effect sizes for ESP → SJO (.69) and EL → SJO (.41) exceed the .35 threshold, both relationships demonstrate large effect sizes, confirming the practical significance of the predictor variables in the structural model.

Table 6
Coefficient of Determination (R^2) and Effect Size (f^2)

Relationship / Construct	R^2	Adjusted R^2	f^2
Social Justice Outcomes (SJO)	.68	.67	
Environmental Sustainability Practices (ESP) → SJO			.69
Ethical Leadership (EL) → SJO			.41

Structural Hypothesis Testing Results

The structural model results presented in Table 7 indicate that Ethical Leadership (EL) has a positive and significant effect on Social Justice Outcomes (SJO) ($\beta = .25$, $t = 5.24$, $p < .001$). This finding suggests that ethical leadership practices contribute to improving fairness, inclusion, and equity within environmentally vulnerable communities. Environmental Sustainability Practices (ESP) also demonstrated a positive and statistically significant influence on Social Justice Outcomes ($\beta = .63$,

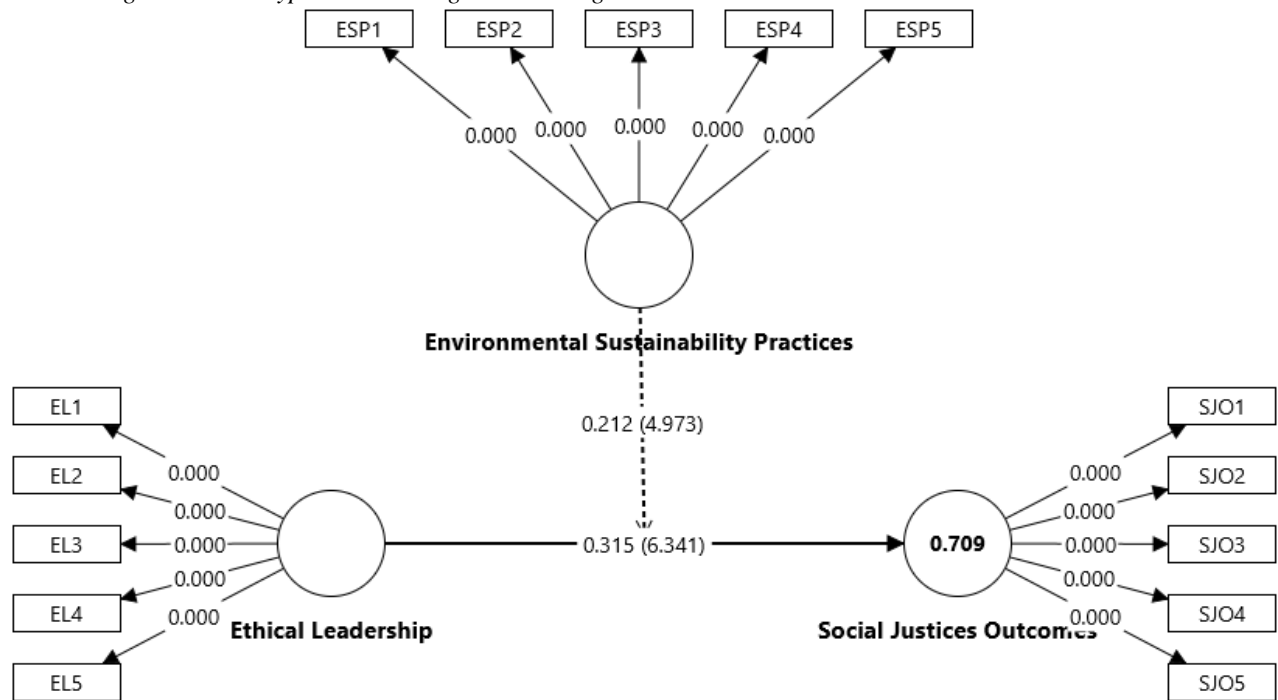
$t = 12.56, p < .001$), indicating that stronger sustainability practices substantially enhance social justice outcomes.

Furthermore, as shown in Figure 3, the moderating analysis revealed that Environmental Sustainability Practices significantly moderate the relationship between Ethical Leadership and Social Justice Outcomes ($\beta = .21, t = 4.97, p < .001$). This implies that the positive influence of ethical leadership on social justice outcomes becomes stronger in contexts where environmental sustainability practices are effectively implemented. Therefore, hypotheses H1, H2, and H3 were all supported.

Table 7
Structural and Moderating Hypothesis Testing Results

Hypothesis	Relationship	β	<i>SD</i>	<i>t</i>	<i>p</i>	Decision
H1	EL → SJO	0.25	.04	5.24	.000	Supported
H2	ESP → SJO	0.63	.05	12.56	.000	Supported
H3	(ESP × EL) → SJO	0.21	.04	4.97	.000	Supported

Figure 3
Moderating Structural Hypothesis Testing Results Diagram



Discussion

The findings of this study revealed that Ethical Leadership (EL) has a significant positive effect on Social Justice Outcomes (SJO) among environmentally vulnerable communities. This suggests that leaders who demonstrate honesty, fairness, accountability, transparency, and concern for community welfare are more likely to promote equitable access to opportunities, inclusive participation in decision-making, and protection of community rights. One possible explanation for this finding is that ethical leaders tend to establish trust-based relationships with community

members, which encourages openness, participation, and collective engagement in governance processes. In environmentally vulnerable settings where communities often experience marginalization and unequal access to resources, ethical leadership becomes essential in ensuring fairness in environmental governance and resource allocation.

The finding also indicates that ethical leadership contributes to reducing perceptions of exclusion and discrimination because ethical leaders are more likely to involve diverse stakeholders in decisions affecting their welfare. This creates a sense of belonging and procedural justice within communities. In the context of environmental vulnerability, such leadership practices may further strengthen social cohesion and improve cooperation between local authorities, environmental institutions, and community members. These findings align with [Al Halbusi et al. \(2020\)](#), who found that ethical leadership reinforces ethical conduct through organizational justice, and with [Penney \(2023\)](#), who asserted that ethically grounded leadership enhances fairness and inclusion in governance procedures. Similarly, [Al Halbusi et al. \(2021\)](#) and [She et al. \(2023\)](#) observed that ethical behavior reduces silence and encourages voice, thereby promoting inclusive decision-making processes. Therefore, the findings imply that ethical leadership improves fairness in environmental management, access to resources, and representation in decisions affecting vulnerable populations.

However, despite the strong positive relationship observed in this study, some prior research has reported mixed or weaker effects of ethical leadership on justice-related outcomes. For example, [Eisenbeiss et al. \(2015\)](#) and [Mayer et al. \(2012\)](#) found that ethical leadership does not always translate directly into perceived fairness when organizational systems and enforcement mechanisms are weak. Similarly, [De Hoogh and Den Hartog \(2008\)](#) argue that the impact of ethical leadership may be constrained by contextual and structural factors within the environment. These findings suggest that ethical leadership alone may not be sufficient unless supported by strong institutional frameworks and participatory governance structures.

The study further found that Ethical Leadership positively and significantly influences Environmental Sustainability Practices (ESP). This implies that leaders who uphold ethical principles are more likely to support environmentally responsible actions, such as conservation initiatives, recycling, efficient resource use, environmental compliance, and sustainability-oriented innovation. A possible reason for this relationship is that ethical leaders often prioritize long-term societal welfare over short-term personal or institutional gains. Consequently, they are more willing to promote environmental policies and practices that protect natural resources and support sustainable community development.

In addition, ethical leadership may shape organizational and community culture by encouraging environmentally responsible behavior among stakeholders. Ethical leaders often serve as role models whose values influence collective attitudes toward environmental protection and sustainability. This is particularly important in environmentally vulnerable communities where poor environmental management can intensify poverty, health risks, and social inequalities. The findings therefore suggest that ethical leadership not only improves governance outcomes but also strengthens environmental responsibility and resilience within communities. These results are consistent with [Hameed et al. \(2023\)](#), who reported that ethical leadership enhances environmental

performance through green innovation, and [Rihal et al. \(2025\)](#), who found that ethical values strengthen environmental practices through organizational culture and identity. Similar conclusions were reported by [Boeske \(2023\)](#), [Ogaga et al. \(2023\)](#), and [Fatoki \(2020\)](#), who argued that ethics-based leadership improves sustainability outcomes across different contexts.

Although the present study confirms a positive relationship between ethical leadership and environmental sustainability practices, some studies have reported less consistent or indirect effects. For instance, [Newman et al. \(2017\)](#) and [Norton et al. \(2015\)](#) found that ethical or pro-environmental leadership does not always lead to significant environmental performance unless supported by organizational commitment and environmental systems. In addition, [Sundarasan et al \(2024\)](#) noted that sustainability outcomes may depend more on institutional enforcement and employee environmental engagement than leadership ethics alone. These inconsistencies indicate that ethical leadership may require complementary environmental structures to fully translate into effective sustainability practices.

Furthermore, the moderating analysis demonstrated that Environmental Sustainability Practices strengthen the positive relationship between Ethical Leadership and Social Justice Outcomes. This indicates that the effectiveness of ethical leadership in promoting fairness, inclusion, and equity becomes stronger when sustainability practices are deeply embedded within community or institutional systems. One explanation for this finding is that sustainability practices provide practical structures and mechanisms for translating ethical principles into measurable social outcomes. In communities where environmental sustainability initiatives are effectively implemented, ethical leadership is more likely to produce transparent, participatory, and socially inclusive outcomes because environmental programs often require stakeholder collaboration, accountability, and shared responsibility.

The result also suggests that sustainability practices create an enabling environment that supports ethical decision-making and reinforces public confidence in leadership processes. In environmentally vulnerable communities, sustainability initiatives such as waste management programs, conservation projects, and environmental awareness campaigns may improve community participation and social inclusion, thereby amplifying the impact of ethical leadership on justice-related outcomes. These findings are consistent with [Saleem et al. \(2020\)](#), who found that sustainability practices enhance the effectiveness of ethical leadership, and [Santiago-Torner et al. \(2025\)](#), who emphasized that contextual sustainability factors influence social sustainability outcomes. Similarly, [Elkhweildi et al. \(2025\)](#) and [Rihal et al. \(2025\)](#) concluded that sustainability-oriented leadership improves engagement and performance when sustainability practices are institutionalized. Therefore, the findings imply that environmental sustainability practices enhance the capacity of ethical leadership to promote social justice outcomes by ensuring that ethical decisions are implemented through clear environmental structures and sustainable practices.

While this study finds that environmental sustainability practices strengthen the relationship between ethical leadership and social justice outcomes, some studies have reported weaker or context-dependent moderating effects. For example, [Boiral et al. \(2018\)](#) and [López-Gamero et al. \(2016\)](#) observed that sustainability practices do not always enhance leadership outcomes when organizational integration and stakeholder participation are low. Similarly, [Pellegrini and Gerlagh](#)

(2006) found that environmental initiatives may yield limited social outcomes in contexts with weak governance systems. These mixed findings suggest that the moderating role of environmental sustainability practices may depend on the level of implementation effectiveness and institutional support.

Implications of Study

The findings support Stakeholder Theory by showing that EL positively affects SJO, ensuring the interests of vulnerable groups are considered. Institutional Theory is also reinforced, as ESP provides structures that consistently implement ethical principles. Together, EL promotes fairness and accountability, while ESP ensures these principles produce practical benefits for communities. The study highlights that ethical leadership and structured sustainability initiatives improve living standards in environmentally vulnerable communities. Fair and accountable leadership, combined with ESP, ensures equitable access to environmental resources, supports community health, and reduces inequalities, promoting environmental justice.

Policymakers and practitioners should promote EL through training in integrity, transparency, and accountability. ESP should guide environmental initiatives to ensure consistency and fairness, while community engagement should be strengthened to include residents in decision-making. Aligning EL with structured sustainability practices enhances SJO and stakeholder confidence in vulnerable communities.

Conclusion, Limitations, and Future Research

This study examined the effects of Ethical Leadership (EL) on Social Justice Outcomes (SJO) and the moderating role of Environmental Sustainability Practices (ESP) in environmentally vulnerable communities. Findings show that EL significantly enhances SJO by promoting equity, inclusion, and accountability, and positively influences ESP, indicating that ethical leaders encourage responsible environmental behaviour. ESP further strengthens EL's effect on SJO, suggesting that structured sustainability practices support ethical decision-making and just outcomes. These results confirm that EL and ESP complement each other in improving SJO.

Theoretically, the study contributes to Stakeholder Theory and Institutional Theory by demonstrating that ethical leadership and well-structured environmental practices are critical for achieving SJO. EL ensures fair representation of stakeholder interests, while ESP provides institutional support for the effective implementation of ethical decisions. Practically, the findings highlight that enhancing leadership ethics and sustainability practices can improve justice and equity in environmental governance.

Limitations include the cross-sectional design, reliance on self-reported data, and focus on Ghana, which may restrict generalizability. Future research should adopt longitudinal designs, include other regions, and explore additional moderators or mediators such as institutional trust and community involvement.

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The authors declare no conflicts of interest

Conflict of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Data Availability Statement

Data will be available on request from the authors.

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Ethics Approval and Consent to Participate

Ethical clearance was obtained from the Research Committee of KAAF University in accordance with the 1964 Declaration of Helsinki. Participation was voluntary, informed consent was secured, and confidentiality and anonymity were maintained. Participants had the freedom to withdraw at any point.

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