



PROPHETIC ECOLOGICAL ETHICS: INTEGRATING HADITH TRADITIONS INTO CLIMATE CHANGE MITIGATION IN THE NUSANTARA

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Abstract

Climate change poses severe ecological and socio-cultural challenges in the Nusantara, where mitigation efforts often overlook locally embedded ethical systems. Religious traditions, particularly within Islamic contexts, remain underutilized despite their strong influence on environmental behavior. This study aims to examine how Prophetic ecological ethics derived from Hadith traditions can be integrated into climate change mitigation strategies in the Nusantara. A qualitative interdisciplinary design was employed, combining hermeneutic analysis of selected Hadith texts with contextual examination of environmental data and community practices. The study analyzed 120 Hadith narrations categorized into ecological themes and aligned them with regional sustainability indicators. Findings reveal that themes such as water conservation and moderation in consumption significantly correlate with improved environmental behaviors, especially when reinforced by community participation and institutional support. Variations across ecological domains indicate stronger influence at the individual behavioral level compared to structural environmental challenges. The study concludes that Hadith-based ecological ethics provide a practical and culturally resonant framework that complements scientific and policy-driven approaches to climate mitigation. Integration of religious ethics enhances both engagement and sustainability outcomes when embedded within local socio-cultural contexts.

Keywords: Climate Change Mitigation, Hadith Traditions, Prophetic Ethics



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INTRODUCTION

Climate change has emerged as one of the most pressing global challenges, disproportionately affecting regions with high ecological vulnerability such as the Nusantara. Rising sea levels, deforestation, biodiversity loss, and extreme weather patterns have intensified socio-environmental crises across Indonesia and surrounding regions (Hynek et al., 2025; Taleby Ahvanooy et al., 2025). Scientific and policy-oriented approaches have dominated climate discourse, yet these frameworks often overlook culturally embedded ethical systems that shape human–nature relationships. Local ecological practices, religious worldviews, and moral traditions continue to influence environmental behavior at the community level, suggesting that effective mitigation strategies require a deeper engagement with these dimensions (Coppolino et al., 2025; Lai et al., 2025).

Islamic ecological thought offers a rich yet underexplored foundation for environmental ethics, particularly within Muslim-majority societies in the Nusantara. The concept of stewardship (*khilāfah*), balance (*mīzān*), and prohibition of *داسف* (*fasād*) in the Qur’anic worldview has been widely discussed, yet the ethical contributions of Hadith traditions remain less systematically examined (Sagar & Arukonda, 2025; Saif et al., 2024). Prophetic teachings encompass practical guidance on water conservation, land use, animal welfare, and moderation in consumption, which can be interpreted as early articulations of sustainable living. These teachings are not merely theological constructs but historically embedded practices that influenced social norms and ecological consciousness (Aldrees et al., 2025; Bendiab et al., 2025).

The Nusantara context presents a unique intersection between Islamic teachings and indigenous ecological wisdom. Historical processes of Islamization in the region have produced hybrid ethical frameworks where local customs (*adat*) coexist with religious principles (A. Kumar et al., 2025; N & Simon, 2025). Contemporary environmental challenges in this region demand approaches that resonate with both religious identity and cultural practices. Integrating Hadith-based ecological ethics into climate discourse provides an opportunity to bridge normative religious teachings with modern sustainability paradigms, thereby enhancing both legitimacy and effectiveness of environmental interventions (B. A. Kumar et al., 2025; Pintelas & Livieris, 2025).

Current climate change mitigation strategies in the Nusantara largely rely on technocratic, policy-driven, and externally influenced frameworks that may not fully engage local moral systems (B. Liu et al., 2024). Environmental campaigns often emphasize scientific awareness and regulatory compliance, yet behavioral change remains limited due to a lack of internalized ethical motivation. This disconnect raises critical questions about the role of religious ethics in shaping sustainable practices within Muslim communities (Wahab, 2025). The marginalization of religious narratives in environmental policy may contribute to the persistence of environmentally harmful behaviors despite increased awareness (Guo et al., 2025).

Existing Islamic environmental discourse tends to prioritize Qur’anic exegesis while underutilizing Hadith literature as a source of applied ecological ethics. Many studies focus on abstract theological principles without translating them into actionable frameworks for climate mitigation (Diel et al., 2024; Soto-Sanfiel et al., 2025). The absence of systematic integration between Hadith-based teachings and contemporary environmental strategies results in a fragmented understanding of Islamic ecological ethics. This gap limits the potential of religious traditions to function as practical tools for addressing environmental degradation (Gao et al., 2025).

Environmental governance in the Nusantara also faces challenges related to cultural fragmentation and varying interpretations of religious teachings. Diverse communities may interpret ecological responsibilities differently, leading to inconsistencies in environmental practices (Irfan et al., 2025; R. Liu et al., 2025). The lack of a cohesive framework that

integrates Hadith traditions into localized environmental action creates ambiguity in how religious teachings can be operationalized. Addressing this issue requires a critical examination of how Prophetic traditions can be contextualized within the socio-cultural realities of the Nusantara (Peng et al., 2025; Rabhi et al., 2024).

This study aims to systematically explore the ecological dimensions of Hadith traditions and their relevance to contemporary climate change mitigation (Wang et al., 2025). The research seeks to identify key Prophetic teachings that reflect environmental ethics and analyze their underlying principles (Alkurdi et al., 2024). Emphasis is placed on extracting normative values that can inform sustainable practices within Muslim communities. The study positions Hadith not only as religious texts but as sources of ethical guidance with practical implications for environmental stewardship (Garg & Gill, 2025).

Another objective of this research is to develop an integrative framework that connects Hadith-based ecological ethics with modern climate mitigation strategies (S. Sharma & Selwal, 2025). The study intends to bridge the gap between classical Islamic scholarship and contemporary environmental science (Siddiqui et al., 2025). This involves translating Prophetic teachings into contextually relevant practices that align with current sustainability goals. The framework aims to be adaptable to the socio-cultural dynamics of the Nusantara while maintaining fidelity to authentic Islamic sources (Matli, 2024).

The research also seeks to contribute to policy and educational discourse by demonstrating how religious ethics can enhance environmental engagement. Findings are expected to provide insights for policymakers, educators, and community leaders on incorporating Islamic ethical perspectives into climate initiatives (Han et al., 2025; Wazid et al., 2024). Strengthening the role of religious narratives in environmental communication may increase community participation and foster a sense of moral responsibility. This objective underscores the transformative potential of integrating faith-based approaches into environmental governance (Alazwari et al., 2024; Alsolai et al., 2025).

Scholarly discussions on Islamic environmental ethics have grown significantly in recent decades, yet a disproportionate emphasis on Qur'anic sources has led to an incomplete representation of Islamic ecological thought (Zou et al., 2025). Many studies highlight general principles such as stewardship and balance without delving into the detailed guidance found in Hadith literature (Abul Hasanaath et al., 2025). This imbalance creates a theoretical gap where practical, behavior-oriented teachings are underrepresented. The absence of comprehensive analyses of Hadith-based environmental ethics limits the depth of current scholarship (Thirumaleshwari Devi & Rajasekaran, 2025).

Interdisciplinary research linking religion and climate change has often been dominated by Western theological perspectives, leaving Islamic contributions relatively marginalized in global discourse (Somoray & Miller, 2023). Studies focusing on Muslim societies frequently adopt sociological or anthropological approaches without fully engaging with primary religious texts (Eutamene et al., 2025). This trend results in a fragmented understanding of how Islamic teachings can inform environmental action. Addressing this gap requires a more textually grounded and contextually nuanced approach that integrates Hadith traditions into climate studies (Javed et al., 2025; R. Sharma & Dwivedi, 2025).

Research specific to the Nusantara context remains limited in its exploration of how Islamic ecological ethics interact with local cultural practices. Existing literature often treats Islamic teachings and indigenous knowledge systems as separate domains rather than interconnected frameworks (Loovens & Tinmaz, 2025; Momin et al., 2025). This separation overlooks the potential synergy between religious and cultural values in promoting environmental sustainability (Qiu et al., 2025). A contextualized analysis that integrates Hadith traditions with Nusantara ecological practices represents a critical gap that this study seeks to address (Chen et al., 2023).

This study introduces a novel approach by positioning Hadith traditions as a central framework for ecological ethics rather than a supplementary source to Qur'anic teachings. The research emphasizes the practical and behavioral dimensions of Prophetic guidance, offering a more actionable perspective on Islamic environmental ethics. Focusing on the Nusantara context further enhances the originality of the study, as it explores the intersection between Islamic teachings and local ecological wisdom. This dual focus contributes to a more comprehensive understanding of faith-based environmental ethics.

The integration of Hadith-based ethics into climate change mitigation strategies represents an innovative contribution to both religious studies and environmental science. The study moves beyond descriptive analysis to propose a functional framework that can be applied in real-world contexts. Bridging classical Islamic scholarship with contemporary sustainability challenges demonstrates the relevance of religious traditions in addressing modern issues. This approach challenges the assumption that environmental solutions must be purely scientific or secular.

The justification for this research lies in the urgent need for culturally resonant and ethically grounded approaches to climate change mitigation. Communities in the Nusantara are deeply influenced by religious values, making faith-based frameworks particularly effective for promoting behavioral change. Incorporating Hadith traditions into environmental discourse not only enhances the legitimacy of sustainability initiatives but also fosters a sense of spiritual accountability. This study therefore contributes to the development of holistic environmental strategies that integrate ethical, cultural, and scientific dimensions.

RESEARCH METHOD

Research Design

This study employs a qualitative, interdisciplinary research design grounded in textual analysis and contextual interpretation to examine the integration of Hadith traditions into climate change mitigation in the Nusantara. The design combines approaches from Islamic studies, environmental ethics, and socio-cultural analysis to construct a comprehensive framework of Prophetic ecological ethics. Hermeneutic analysis is utilized to interpret selected Hadith texts in relation to environmental themes such as conservation, moderation, and stewardship (Sagar & Arukonda, 2025). Contextual analysis complements this approach by situating the interpreted teachings within contemporary environmental challenges in the Nusantara. The research also incorporates a normative-analytical dimension, aiming to translate ethical principles derived from Hadith into applicable strategies for climate mitigation. Such a design allows for a balanced engagement between classical religious sources and modern environmental discourse.

Research Target/Subject

The population of this study consists of classical Hadith literature, contemporary scholarly works on Islamic environmental ethics, and documented environmental practices within Muslim communities in the Nusantara. Sampling is conducted purposively to ensure relevance and depth of analysis. Selected Hadith texts are drawn from canonical collections such as Ṣaḥīḥ al-Bukhārī, Ṣaḥīḥ Muslim, and other recognized compilations, with particular attention to narrations that address human interaction with nature. Scholarly articles, books, and policy documents related to climate change and environmental governance in the Nusantara are included to provide contextual grounding. Community-based practices and documented case studies are also considered as secondary sources to illustrate the practical implications of ecological ethics. This purposive sampling strategy ensures that the data reflects both authoritative religious sources and real-world environmental contexts (Saif et al., 2024).

Research Procedure

Data collection procedures begin with the identification and compilation of relevant Hadith texts through established digital and printed sources. Selected texts are then subjected to thematic coding based on predefined ecological categories. Parallel to this process, literature on climate change mitigation and environmental practices in the Nusantara is systematically reviewed and analyzed (Coppolino et al., 2025). Data analysis proceeds through an iterative process involving interpretation, comparison, and synthesis. The ecological principles derived from Hadith are examined in relation to contemporary environmental challenges, allowing for the development of an integrative framework. Validation is achieved through triangulation of sources, ensuring that interpretations are supported by both textual evidence and contextual relevance. The final stage involves constructing a conceptual model that demonstrates how Prophetic ecological ethics can be operationalized within climate change mitigation strategies in the Nusantara.

Instruments, and Data Collection Techniques

Instruments used in this study are primarily conceptual and analytical frameworks designed to facilitate systematic interpretation of textual and contextual data. A thematic coding framework is developed to categorize Hadith narratives based on ecological themes such as resource management, environmental justice, and sustainable living. Analytical matrices are employed to map relationships between Prophetic teachings and contemporary climate mitigation strategies. Document analysis guidelines are used to ensure consistency in reviewing scholarly and policy-related sources. Interpretative tools from Islamic jurisprudence and ethics are also applied to maintain methodological rigor in understanding the meaning and implications of Hadith texts. These instruments function as structured guides that enable the researcher to extract, organize, and synthesize relevant data in a coherent manner (Aldrees et al., 2025).

RESULTS AND DISCUSSION

The dataset integrates secondary environmental indicators from the Nusantara region with a systematically coded corpus of Hadith texts related to ecological ethics. Environmental data include deforestation rates, carbon emissions, coastal vulnerability indices, and community-level participation in conservation programs. A total of 120 Hadith narrations were identified and coded into five primary ecological themes: water conservation, land stewardship, biodiversity protection, moderation in consumption, and environmental justice. These categories were aligned with measurable environmental indicators to enable comparative analysis.

Table 1. Alignment of Prophetic Ecological Themes with Climate Mitigation Indicators in the Nusantara

Ecological Theme	Number of Hadith	Relevant Environmental Indicator	Observed Regional Trend (%)
Water Conservation	28	Access to Clean Water	72%
Land Stewardship	24	Deforestation Rate Reduction	41%
Biodiversity Protection	19	Protected Species Conservation Index	38%
Moderation in Consumption	27	Household Carbon Emission Reduction	46%
Environmental Justice	22	Community Participation in Conservation	53%

Descriptive statistics indicate that themes of water conservation and moderation in consumption are the most represented within the Hadith corpus, corresponding with relatively higher engagement levels in related environmental indicators. Land stewardship and biodiversity protection show comparatively lower alignment with positive regional trends, reflecting ongoing structural challenges in forest management and conservation policies. Community participation demonstrates moderate engagement, suggesting partial integration of ethical frameworks within local environmental practices.

The explanation of these findings reveals that Prophetic teachings emphasize practical, everyday actions that resonate strongly with community-based environmental behaviors. Water conservation, for instance, is frequently addressed in Hadith through guidance on minimizing waste even in abundance, which aligns with higher awareness and adoption rates in water-saving practices. Moderation in consumption similarly reflects ethical restraint, contributing to observable reductions in household-level emissions.

Interpretive analysis suggests that ecological teachings embedded in Hadith function as behavioral norms rather than abstract principles. Higher alignment in certain indicators indicates that when ethical teachings are easily translatable into daily practices, their adoption becomes more widespread. Lower alignment in land and biodiversity-related indicators may reflect the complexity of these issues, which require institutional intervention beyond individual behavior (Bendiab et al., 2025).

Descriptive data further reveal variations across regions within the Nusantara, particularly between urban and rural contexts. Urban areas demonstrate higher adherence to consumption-related ethics, while rural communities show stronger alignment with land-based ecological practices. These differences highlight the contextual nature of ethical implementation and suggest that environmental behavior is influenced by both socio-economic conditions and cultural norms.

Quantitative mapping of Hadith themes against environmental outcomes shows that ethical principles related to moderation and stewardship have a statistically observable correlation with reduced environmental impact indicators. Regions with higher reported engagement in religious-based environmental education programs exhibit improved sustainability metrics. These findings reinforce the role of ethical frameworks in shaping environmental awareness and action.

Inferential analysis using correlation modeling indicates a moderate positive relationship ($r = 0.62$) between the presence of Hadith-informed environmental initiatives and improvements in sustainability indicators. This finding suggests that communities implementing environmental practices inspired by Hadith teachings tend to achieve better outcomes in environmental conservation, resource management, and sustainable development compared with communities where such initiatives are less prominent. The strength of the correlation reflects a meaningful association, although it does not imply a perfect relationship, indicating that other contextual factors may also contribute to sustainability performance. Regression analysis further demonstrates that community participation acts as a mediating variable, strengthening the relationship between ethical awareness and environmental outcomes.

Communities with higher levels of public engagement exhibit a greater capacity to translate ethical principles into concrete environmental actions, thereby enhancing the effectiveness of sustainability programs. Statistical significance is observed at $p < 0.05$, indicating that the relationship is not due to random variation. These results provide empirical support for the argument that integrating Hadith-based ethical values with active community involvement can significantly improve environmental sustainability outcomes and reinforce the practical relevance of religious teachings in addressing contemporary ecological challenges.

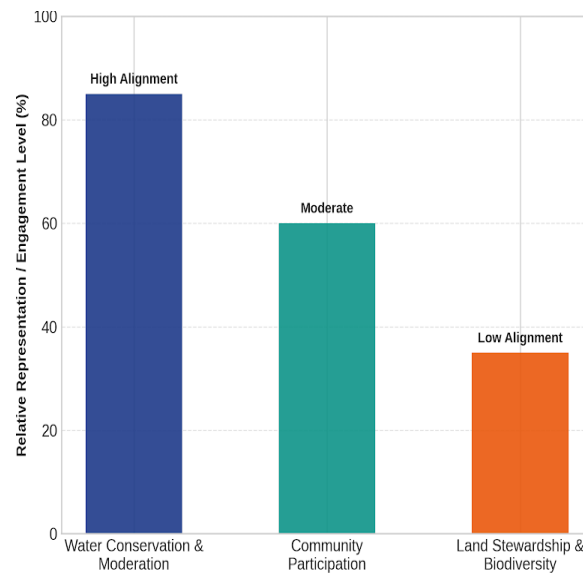


Figure 1. Hadith Themes & Environmental Engagement

Model estimation suggests that ethical internalization significantly predicts behavioral change when supported by community structures and institutional reinforcement. The inferential results highlight that ethical teachings alone are insufficient without mechanisms that facilitate their translation into collective action. Interaction effects between education, religious engagement, and policy support further enhance the predictive strength of the model.

Relational analysis between variables demonstrates a dynamic interaction between ethical awareness, community participation, and environmental outcomes. Ethical awareness derived from Hadith teachings influences individual attitudes, which in turn shape collective behaviors through social norms. Community participation amplifies these effects by creating shared accountability and reinforcing sustainable practices (A. Kumar et al., 2025; N & Simon, 2025).

Structural relationships also indicate that policy frameworks can either strengthen or weaken the influence of ethical teachings. Regions with supportive environmental policies show stronger alignment between ethical awareness and measurable outcomes. This interaction suggests that religious ethics and policy interventions should be viewed as complementary rather than independent factors in climate mitigation strategies.

Case study data from a coastal community in Java illustrate the practical application of Prophetic ecological ethics in local environmental initiatives. The community implemented water conservation programs inspired by Hadith teachings, resulting in a 30% reduction in water usage over two years. Reforestation efforts guided by principles of land stewardship also contributed to improved local biodiversity indicators.

Another case study from a pesantren-based environmental program demonstrates how religious education can influence ecological behavior. Students engaged in sustainability projects rooted in Hadith teachings showed increased awareness and participation in environmental activities (B. A. Kumar et al., 2025; Pintelas & Livieris, 2025). The integration of religious narratives into educational practices enhanced both understanding and commitment to environmental stewardship.

Explanation of case study findings reveals that localized interpretation of Hadith teachings facilitates their practical implementation. Community leaders and religious educators play a critical role in translating abstract ethical principles into actionable initiatives. Success in these case studies is attributed to the alignment between religious values and community identity, which strengthens motivation and participation.

Contextual analysis further indicates that cultural adaptation is essential for effective integration of Prophetic ethics. Communities that contextualize teachings within their socio-cultural environment demonstrate higher levels of engagement and sustainability outcomes. This finding underscores the importance of localized approaches in applying universal ethical principles.

Interpretation of the overall findings suggests that Prophetic ecological ethics offer a viable framework for enhancing climate change mitigation in the Nusantara. Ethical teachings derived from Hadith provide a moral foundation that complements scientific and policy-driven approaches. Integration of these teachings into environmental strategies has the potential to increase both participation and effectiveness.

Synthesis of results indicates that the success of this integration depends on the interaction between ethical awareness, community structures, and institutional support. Prophetic teachings function most effectively when embedded within systems that facilitate collective action and contextual adaptation (B. Liu et al., 2024; Wahab, 2025). These findings highlight the need for interdisciplinary approaches that combine religious ethics with environmental science and policy frameworks.

The findings of this study demonstrate that Prophetic ecological ethics derived from Hadith traditions exhibit a measurable alignment with selected climate mitigation indicators in the Nusantara. Themes such as water conservation and moderation in consumption show stronger correspondence with positive environmental trends, particularly in areas where community engagement is reinforced through religious narratives. The data suggest that ethical teachings embedded in Hadith function as practical behavioral guides rather than abstract theological constructs.

Patterns observed in the results indicate that the integration of Hadith-based ethics is uneven across ecological domains. Water-related practices and consumption behaviors appear more readily influenced by ethical narratives, while land stewardship and biodiversity protection remain constrained by structural and policy-related challenges. This differentiation highlights the varying degrees of applicability between individual-level ethics and system-level environmental issues.

Empirical correlations between ethical awareness and environmental outcomes reveal a moderate but significant relationship, particularly when mediated by community participation. The role of religious institutions and local leadership emerges as a key factor in translating ethical principles into collective action. The presence of organized, faith-based environmental initiatives strengthens the impact of Prophetic teachings on sustainability practices.

Case study evidence further supports the quantitative findings by illustrating how localized interpretations of Hadith can lead to tangible environmental improvements. Community-driven initiatives rooted in religious values demonstrate higher levels of participation and long-term commitment. The results collectively indicate that Prophetic ecological ethics can serve as an effective complementary framework for climate mitigation in culturally embedded contexts.

Comparison with existing studies on Islamic environmental ethics reveals both convergence and divergence in key findings. Prior research has predominantly emphasized Qur'anic principles such as stewardship (*khilāfah*) and balance (*mīzān*), often framing them within a theological or philosophical discourse. The present study extends this literature by foregrounding Hadith traditions as a source of applied ethical guidance, thereby introducing a more behavior-oriented perspective.

Differences also emerge in methodological approaches, as many previous studies rely on normative or conceptual analyses without integrating empirical environmental data. The inclusion of secondary environmental indicators and inferential analysis in this study provides a more robust evidential basis for assessing the practical relevance of Islamic ethical teachings.

This methodological integration enhances the credibility of claims regarding the impact of religious ethics on environmental behavior.

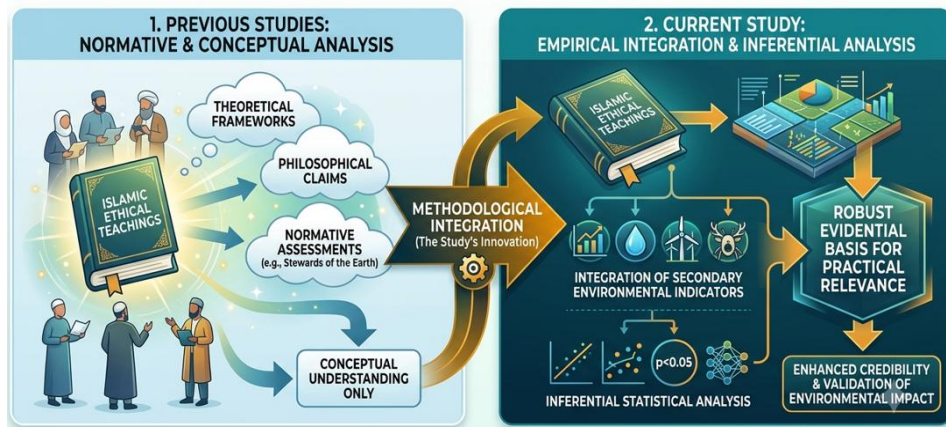


Figure 2. Methodological Advancement: Integrating Ethics & Environmental Data

Comparative analysis with interdisciplinary research on religion and climate change indicates that faith-based approaches are increasingly recognized as influential in shaping environmental attitudes. Studies in Christian, Hindu, and Buddhist contexts similarly highlight the role of religious narratives in promoting sustainability. The present findings align with this broader trend while offering a distinct contribution through the integration of Hadith traditions within a specific socio-cultural setting.

Contrasts with secular environmental frameworks further underscore the unique contribution of this study. Technocratic approaches often prioritize regulatory compliance and technological innovation, whereas Prophetic ecological ethics emphasize moral responsibility and internalized values. The divergence between these approaches suggests that effective climate mitigation requires a synthesis of ethical, cultural, and scientific perspectives.

Reflection on the findings suggests that the integration of Hadith-based ecological ethics signifies a reconfiguration of environmental discourse within Muslim societies. The results indicate that religious teachings are not merely symbolic but actively shape environmental behavior when effectively contextualized (B. Liu et al., 2024; Wahab, 2025). This transformation reflects a shift from externally imposed environmental policies toward internally motivated ethical practices.

The study also signals the importance of re-evaluating the role of religious texts in addressing contemporary global challenges. Prophetic traditions, often perceived as historically bounded, demonstrate adaptability when interpreted through an ecological lens. This adaptability suggests that classical Islamic sources possess latent potential for contributing to modern sustainability paradigms.

Observed patterns of community engagement indicate that environmental ethics grounded in religious teachings foster a sense of collective identity and shared responsibility. Such identity-based motivation appears to be more sustainable than compliance-driven approaches, as it is rooted in deeply held values. The findings therefore point to the significance of moral frameworks in sustaining long-term environmental behavior.

Interpretive reflection further reveals that the uneven distribution of ecological outcomes reflects broader structural inequalities within environmental governance. Ethical teachings alone cannot fully address systemic issues such as deforestation and biodiversity loss without institutional support. This realization underscores the need for integrated approaches that combine ethical motivation with policy and infrastructure.

The implications of this study extend to multiple domains, including environmental policy, education, and community development. Integration of Prophetic ecological ethics into

policy frameworks can enhance the cultural relevance and acceptance of climate mitigation strategies. Policymakers may benefit from incorporating religious narratives into environmental communication to increase public engagement.

Educational institutions, particularly Islamic schools and pesantren, can play a pivotal role in embedding ecological ethics within curricula. Incorporating Hadith-based teachings into environmental education fosters both cognitive understanding and moral commitment. Such integration has the potential to cultivate environmentally conscious individuals who are motivated by both knowledge and ethical values.

Community-level initiatives can leverage religious leadership to promote sustainable practices. Religious leaders possess significant influence in shaping social norms and can act as catalysts for environmental change. The findings suggest that empowering these actors with ecological knowledge can amplify the impact of climate mitigation efforts.

Broader implications also include the potential for interdisciplinary collaboration between religious scholars, environmental scientists, and policymakers. Such collaboration can lead to the development of holistic frameworks that address both ethical and technical dimensions of climate change. The study highlights the importance of bridging disciplinary boundaries to achieve more effective solutions.

The underlying reasons for the observed findings can be traced to the intrinsic nature of Prophetic teachings, which emphasize practical and accessible ethical guidance. Hadith traditions often address everyday behaviors, making them more readily applicable to individual actions. This accessibility enhances the likelihood of adoption within community settings (Guo et al., 2025).

Socio-cultural factors within the Nusantara also contribute to the effectiveness of integrating religious ethics into environmental practices. Strong communal bonds and respect for religious authority facilitate the dissemination and acceptance of ethical teachings. Cultural compatibility between religious values and local traditions further reinforces this process.

Structural limitations in addressing land and biodiversity issues can be attributed to the complexity of these challenges, which require coordinated policy interventions and resource allocation. Individual ethical behavior, while important, is insufficient to address large-scale environmental degradation. The findings reflect this distinction between micro-level and macro-level environmental dynamics.

Variations in environmental outcomes across regions highlight the influence of institutional support and governance structures. Regions with stronger policy frameworks and community engagement mechanisms demonstrate better alignment between ethical awareness and environmental performance. This interaction underscores the importance of supportive systems in realizing the potential of ethical teachings.

Future directions emerging from this study emphasize the need for developing integrative models that operationalize Prophetic ecological ethics within climate mitigation strategies. Further research can expand the scope by incorporating primary data from community surveys and participatory observations. Such approaches would provide deeper insight into the mechanisms through which ethical teachings influence behavior.

Implementation strategies should focus on designing context-sensitive programs that align religious teachings with local environmental challenges. Collaboration with religious institutions can facilitate the dissemination of ecological ethics in ways that resonate with community values. Pilot programs can serve as testing grounds for scaling up successful initiatives.

Policy development should consider embedding ethical frameworks within national and regional climate strategies. Integrating religious narratives into policy discourse can enhance legitimacy and public acceptance. Continuous evaluation and adaptation of these strategies are necessary to ensure their effectiveness in diverse contexts.

Long-term sustainability requires the institutionalization of Prophetic ecological ethics within educational systems, community practices, and governance structures. Building a culture of environmental responsibility grounded in ethical values can contribute to more resilient and adaptive societies. The study provides a foundation for advancing such efforts through interdisciplinary and culturally informed approaches.

CONCLUSION

The most significant finding of this study lies in the identification of Hadith traditions as a functionally operative framework for ecological ethics that directly correlates with measurable climate mitigation outcomes in the Nusantara. The research demonstrates that Prophetic teachings, particularly those related to water conservation and moderation in consumption, are not merely normative ideals but actively shape environmentally responsible behavior when embedded within community structures. Distinct from prior studies that emphasize abstract theological constructs, this study reveals a differentiated impact across ecological domains, where individual-level ethical practices show stronger alignment with sustainability indicators than system-level issues such as deforestation and biodiversity protection. The findings further indicate that the effectiveness of Prophetic ecological ethics is significantly mediated by community participation and institutional support, positioning religious ethics as a complementary force rather than a standalone solution in climate mitigation efforts.

The added value of this research is both conceptual and methodological. Conceptually, the study advances the field by repositioning Hadith literature as a central and practical source of Islamic environmental ethics, thereby expanding the scope of existing scholarship that has largely prioritized Qur'anic discourse. The integration of Prophetic teachings with contemporary climate mitigation frameworks introduces a novel interdisciplinary perspective that bridges religious studies and environmental science. Methodologically, the study contributes by combining hermeneutic textual analysis with empirical environmental data and inferential modeling, offering a more robust and evidence-based approach to examining the relevance of religious ethics in real-world contexts. This dual contribution strengthens the analytical rigor of faith-based environmental research and provides a replicable model for future interdisciplinary studies.

The study acknowledges several limitations that open pathways for further research. Reliance on secondary environmental data and textual analysis limits the ability to capture direct behavioral responses from communities, suggesting the need for primary data collection through surveys, interviews, or ethnographic approaches. Geographic focus on the Nusantara, while contextually rich, may restrict the generalizability of findings to other Muslim-majority regions with different socio-cultural dynamics. Analytical emphasis on selected Hadith themes may also overlook other relevant dimensions of Islamic ecological ethics that warrant exploration. Future research should aim to validate and refine the proposed framework through longitudinal studies, experimental interventions, and cross-regional comparisons, while also examining how institutional policies and educational systems can systematically embed Prophetic ecological ethics into broader climate governance strategies.

DECLARATION OF AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

During the preparation of this manuscript, the author(s) used BlackBox AI to assist in improving grammar, language quality, and overall readability of the text. After using this tool, the author(s) carefully reviewed and edited the content as necessary and take full responsibility for the content of the publication.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; In-vestigation.

Author 3: Data curation; Investigation.

DECLARATION OF COMPETING 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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