



Islamic Education with an Ecological Perspective: Quranic Foundations, Environmental Ethics, and Pathways toward Sustainable Development

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<p>Article Information: Received: 4 January 2026 Revised: 13 March 2026 Accepted: 17 March 2026 Published: 31 March 2026</p> <p>Keywords: Islamic Education, Ecological Perspective, Quranic Environmental Ethic, Eco-<i>Pesantren</i>, Education for Sustainable Development.</p>	<p style="text-align: center;">Abstract</p> <p>The escalating global environmental crisis necessitates the mobilization of moral and spiritual resources beyond scientific and regulatory frameworks. Islam, with approximately 1.8 billion adherents, possesses a comprehensive ecological ethic, yet existing scholarship on its integration into Islamic education remains fragmented across theological, pedagogical, and policy domains. No prior systematic review has synthesized these three interconnected domains into a unified analytical framework. This study addresses this gap by conducting a Systematic Literature Review (SLR) following the PRISMA 2020 guidelines, examining three interrelated pillars: (1) Quranic ecological ethics as theological foundations (2) pedagogical implementation within Islamic educational institutions, and (3) policy and practical pathways to sustainable development. A systematic search of the Scopus database (2009–2026) using targeted keywords yielded 56 records. After screening, eligibility assessment, and quality appraisal using a modified Mixed Methods Appraisal Tool (MMAT), 34 peer-reviewed publications were included in the thematic synthesis. The findings reveal that the Quran articulates a coherent ecological ethic grounded in <i>khilafah</i> (stewardship), tawhid (divine unity), <i>mizan</i> (cosmic balance), and the prohibition of <i>israf</i> (wastefulness). Innovative institutional models—including eco-<i>pesantren</i>, eco-<i>tahfiz</i>, and eco-madrasah in Indonesia and Malaysia—have successfully bridged religious formation and environmental literacy. Furthermore, strong alignment between Quranic environmental values and the United Nations Sustainable Development Goals positions Islamic educational institutions as underutilized platforms for advancing sustainability. Limitations include exclusive reliance on Scopus, language restrictions, and geographical concentration in Southeast Asia. Future research should prioritize longitudinal quantitative studies and comparative analyses across diverse Islamic educational contexts.</p>
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INTRODUCTION

The contemporary world faces an unprecedented environmental crisis characterized by accelerating climate change, biodiversity loss, deforestation, water scarcity, and pollution of air, soil, and ocean ecosystems. The Intergovernmental Panel on Climate Change (IPCC) has repeatedly emphasized that human activity—particularly industrialization, deforestation, and unsustainable consumption—constitutes the primary driver of ecological degradation. Despite decades of international treaties, scientific warnings, and policy interventions, the

trajectory of environmental destruction continues largely unabated. It is within this context that scholars, policymakers, and communities have increasingly turned to the moral and ethical dimensions of environmental engagement, recognizing that scientific and regulatory frameworks alone are insufficient to transform human behavior. Religious traditions, which shape the worldviews, values, and daily practices of billions of people worldwide, have emerged as vital resources for ecological mobilization and the cultivation of environmental consciousness (Foltz, 2009).

Islam, as one of the world's largest religions with approximately 1.8 billion adherents, possesses a comprehensive ethical framework that addresses the relationship between humanity and the natural world. The Quran, the central sacred text of Islam, contains over 400 verses referencing the Earth, its ecosystems, and the moral obligations of human beings as stewards of creation (Blankinship et al., 2025; Safee & Yunos, 2015). Foundational Islamic concepts such as *khilafah* (stewardship or vicegerency), *tawhid* (the oneness of God and the unity of creation), *mizan* (cosmic balance), and the prohibition of *israf* (wastefulness and extravagance) collectively articulate an environmental ethic that emphasizes responsibility, moderation, interconnectedness, and justice (Bakar et al., 2025; Ball, 2025; Saged & Aly, 2025). Despite the richness of these theological resources, their integration into formal educational systems—particularly within Islamic educational institutions—remains an area of emergent scholarship and practice.

Islamic education, broadly defined, encompasses the transmission of knowledge, values, and practices rooted in the Quran, *Hadith* (prophetic traditions), and the broader Islamic intellectual heritage. Historically, Islamic educational institutions—including *madrasahs*, *pesantren* (Islamic boarding schools), and universities—have focused primarily on religious sciences such as Quranic exegesis (*tafsir*), jurisprudence (*fiqh*), theology (*kalam*), and Arabic language studies. While these disciplines address human conduct, ethics, and social relations, explicit attention to ecological themes has traditionally been limited. However, the growing severity of environmental challenges has prompted a reexamination of Islamic curricula and pedagogical approaches, with scholars and educators advocating for the integration of ecological perspectives into Islamic education (Fua et al., 2018; Maslani et al., 2023)

The concept of Islamic education with an ecological perspective refers to an educational paradigm that intentionally integrates environmental ethics, ecological awareness, and sustainability principles into the framework of Islamic teaching and learning. This approach is grounded in the conviction that environmental stewardship is not merely a secular or scientific concern but a religious obligation (*fard*) rooted in divine commandment. By connecting Quranic teachings on nature, creation, and human responsibility with contemporary environmental science and sustainability discourse, this educational approach seeks to cultivate a generation of Muslims who are both spiritually devoted and ecologically literate (Amrullah et al., 2025; Aziz Rekan & Mokhtar, 2025; Setianingrum et al., 2024).

The significance of this topic is amplified by the demographic and geographic realities of the Muslim world. Many Muslim-majority countries are located in regions that are disproportionately vulnerable to the effects of climate change—including drought, flooding, desertification, and food insecurity. At the same time, rapidly growing populations and

industrialization in these regions create additional pressures on natural resources. Educational systems, particularly those that reach young people through the extensive network of Islamic schools worldwide, represent a critical leverage point for fostering the environmental values and behaviors necessary for sustainable development (Bsoul et al., 2022; Elihami & Pajarianto, 2025).

Recent scholarship on the intersection of Islam and ecology has advanced along several distinct trajectories. One stream of research has focused on theological and exegetical analysis, examining Quranic verses and *Hadith* texts to articulate Islamic environmental ethics (Bakar et al., 2025; Blankinship et al., 2025; Noer & Sarumpaet, 2017; Saged & Aly, 2025). A second trajectory has concentrated on empirical case studies within specific Islamic educational institutions—particularly *pesantren* and *madrasahs* in Indonesia and Malaysia—documenting localized practices of environmental integration (Fua et al., 2018; Hadisi et al., 2025; Maslani et al., 2023). A third body of work has explored the policy dimensions, investigating how Islamic ecological principles align with international sustainability frameworks such as the United Nations Sustainable Development Goals (Bsoul et al., 2022; Elihami & Pajarianto, 2025). While each of these trajectories has produced valuable contributions, the existing literature remains largely fragmented: theological discourse on Quranic ecology is often separated from empirical studies of pedagogical practice, and neither is systematically connected to policy outcomes and sustainable development pathways. Furthermore, no existing systematic review has attempted to synthesize these three domains— theological foundations, pedagogical implementation, and policy implications—into a unified analytical framework. This fragmentation limits the capacity of scholars, educators, and policymakers to develop coherent, evidence-based strategies for integrating ecological perspectives into Islamic education. It is this critical gap in the literature that the present study seeks to address.

Against this background, the present study addresses three interrelated research questions organized around distinct yet complementary pillars: (1) Theological Foundations (Quranic Ethics): What ecological principles and environmental ethics are articulated in the Quran, and how do they constitute a coherent theological framework for environmental responsibility? (2) Pedagogical Implementation (Islamic Education Contexts): How has Islamic education with an ecological perspective been conceptualized, developed, and implemented within contemporary Islamic educational institutions? (3) Policy and Practical Outcomes (Pathways to Sustainable Development): In what ways do Quranic ecological insights and Islamic ecological education contribute to sustainable development goals and inform environmental policy and governance? Given the fragmented and interdisciplinary nature of the current literature—spanning Islamic theology, environmental ethics, educational theory, and sustainability science—a Systematic Literature Review (SLR) is the most appropriate methodology to address these research questions. The SLR approach enables the rigorous identification, critical appraisal, and integrative synthesis of diverse scholarly contributions into a coherent analytical framework, thereby bridging the gaps across the three domains outlined above.

By systematically reviewing the existing literature, this study aims to provide a comprehensive and integrative analysis that contributes to the growing field of Islamic

environmental education and offers practical recommendations for educators, policymakers, and community leaders. The article is structured as follows: the next section outlines the research methodology, including the systematic literature review protocol employed in accordance with the (Page et al., 2021) guidelines. The Results and Discussion section presents the findings organized around three major thematic areas corresponding to the research questions: Quranic ecological principles and environmental ethics, Islamic education with ecological integration, and contributions to sustainable development. The article concludes with a synthesis of key findings, practical implications, and directions for future research.

RESEARCH METHOD

This study employed a Systematic Literature Review (SLR) methodology to synthesize and critically analyze the existing body of scholarship on Islamic education with an ecological perspective, Quranic environmental ethics, and the ecological insights found within the Quran. The systematic literature review is a rigorous and transparent research method that enables the identification, selection, appraisal, and synthesis of relevant studies to answer specific research questions (Snyder, 2019). This review was conducted in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021), which provide a standardized international framework for reporting systematic reviews. Adherence to the PRISMA protocol ensures transparency, reproducibility, and methodological rigor throughout the review process. This approach was selected because it allows for the integration of diverse streams of literature—spanning Islamic theology, environmental ethics, educational theory, and sustainability science—into a coherent analytical framework, thereby addressing the fragmented nature of existing scholarship across these domains.

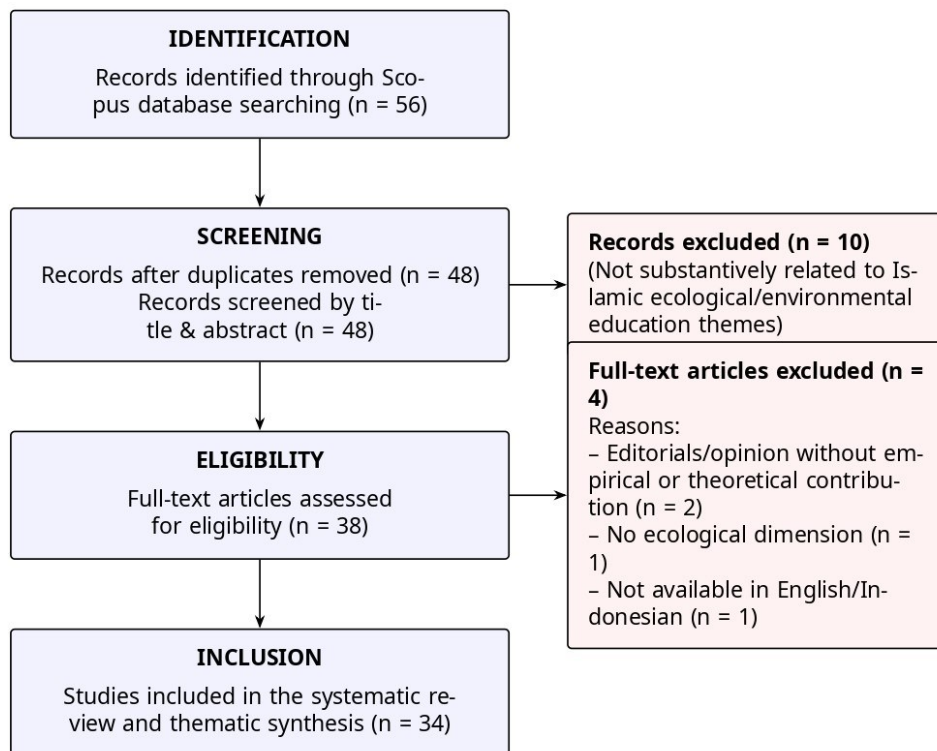
The primary database utilized for the identification of relevant literature was Scopus, one of the largest abstract and citation databases of peer-reviewed publications. Scopus was selected due to its comprehensive coverage of international journals, conference proceedings, and book chapters across the social sciences, humanities, and environmental sciences. The search was conducted using a combination of keywords and Boolean operators, including: "Islamic education AND environment," "Quran AND ecology," "Quran AND environmental ethics," "Islamic stewardship AND environment," "*ecopasantren*," "Islamic environmental education," "*kebilafab* AND ecology," and "Quranic ecological insights." Searches were performed in both the title/abstract/keyword fields and full-text fields to maximize retrieval.

The following inclusion criteria were applied: (a) publications written in English or Indonesian; (b) publications available in peer-reviewed journals, edited volumes, or conference proceedings; (c) publications directly addressing the intersection of Islamic teachings, the Quran, ecological ethics, and/or environmental education; (d) publications dated between 2009 and 2026. The year 2009 was selected as the starting point because it marks the publication of Foltz's seminal contribution on Islam within the broader discourse of religion and ecology in *The Oxford Handbook of Religion and Ecology* (Foltz, 2009), which is widely recognized as a foundational reference that catalyzed systematic academic engagement

with Islamic environmental ethics. The endpoint of 2026 was selected to capture the most recent and contemporary scholarship available at the time of this review. Exclusion criteria included: (a) publications not indexed in Scopus; (b) publications lacking substantive engagement with Quranic or Islamic ecological themes; (c) editorials, book reviews, or opinion pieces without empirical or theoretical contribution.

The review process followed four sequential phases consistent with the PRISMA framework: identification, screening, eligibility, and inclusion. In the identification phase, a total of 56 potentially relevant publications were retrieved from the Scopus database based on the search strategy described above. In the screening phase, 8 duplicate records were removed, and the remaining 48 records were screened by title and abstract for relevance to the research questions. Of these, 10 records were excluded because they did not substantively address the intersection of Islamic teachings, the Quran, and ecological or environmental education themes. In the eligibility phase, the full texts of the remaining 38 publications were assessed against the inclusion and exclusion criteria. Four additional publications were excluded at this stage: two were editorials or opinion pieces lacking empirical or theoretical contribution, one addressed Islamic education without any ecological dimension, and one was not available in English or Indonesian. In the inclusion phase, a final set of 34 publications was retained for data extraction, quality appraisal, and thematic synthesis. The complete selection process is illustrated in the PRISMA Flow Diagram (Figure 1).

PRISMA Flow Diagram



Note: Adapted from the PRISMA 2020 flow diagram template (Page et al., 2021).

Figure 1. PRISMA Flow Diagram

RESULTS AND DISCUSSION

Quranic Ecological Principles and Environmental Ethics

The Quran provides a comprehensive ethical framework for understanding the relationship between humanity and the natural world. The reviewed literature consistently identifies several foundational principles that constitute the Quranic ecological ethic: *khilafah* (stewardship), *tawhid* (divine unity and the interconnectedness of creation), *mizan* (balance), *israf* (wastefulness), and *fasad* (corruption). These principles are not merely abstract theological concepts but carry direct implications for environmental behavior, resource management, and ecological responsibility.

1. *Khilafah*: Stewardship and Vicegerency

The concept of *khilafah* is widely recognized as the cornerstone of Islamic environmental ethics. The Quran positions human beings as *khalifah* (vicegerents or stewards) of the Earth, a role that carries profound moral responsibility. As Bakar et al. (2025) explain in their thematic analysis of conservation and stewardship in the Quran, the designation of humans as God's representatives on Earth implies a duty to care for, protect, and sustain the natural environment rather than to exploit or degrade it. Similarly, Saged & Aly (2025) articulate a *maqasid*-based perspective on environmental protection, arguing that the preservation of the environment is integral to the higher objectives (*maqasid al-shariah*) of Islamic law, which include the protection of life, intellect, progeny, and property.

The *khilafah* concept is explicitly articulated in several Quranic verses. Surah Al-Baqarah (2:30) states, "Indeed, I will make upon the earth a successive authority (*khalifah*)," establishing the human role as one of governance and custodianship rather than ownership. This verse, as interpreted by Nur et al. (2025) in their study of Quranic ecotheology and forest protection in Indonesia, underscores that human authority over nature is delegated and conditional—contingent upon the fulfillment of ethical obligations toward the created world. The failure to exercise responsible stewardship constitutes a betrayal of the divine trust (*amanah*) and is subject to accountability in both this life and the hereafter.

Ball (2025) further elaborates that the *khilafah* framework positions environmental destruction as a violation of the covenant between God and humanity. This perspective is echoed by Kurbiyanto et al. (2024), who discuss the ethical principles in Islamic teachings that emphasize environmental protection and preservation, noting that the Quran and *Hadith* collectively establish a clear moral imperative for Muslims to act as guardians of the biosphere. The concept of *khilafah* thus provides a theologically grounded motivation for environmental action that is distinct from—but complementary to—secular environmentalism.

2. *Tawhid*: Unity, Interconnectedness, and the Sacred Character of Nature

The principle of *tawhid*, the foundational Islamic doctrine of God's absolute oneness, carries significant ecological implications. As Baharuddin & Musa (2017) explain in their analysis of environmental ethics in Islam, *tawhid* implies that all of creation originates from a single divine source, and therefore all elements of the natural world—animate and inanimate—are interconnected and interdependent. This

understanding challenges anthropocentric worldviews that treat nature as merely instrumental to human ends, instead affirming the intrinsic value of every component of creation.

The interconnectedness of life is a recurring theme in the Quran. Blankinship et al. (2025) demonstrate that the Quran references biodiversity extensively, identifying numerous plant and animal species and affirming their roles within the broader ecological system. Surah Al-An'am (6:38) declares, "There is no creature on earth, nor a bird that flies with its two wings, but they are communities like you," a verse that Aboul-Enein (2018) interprets as establishing the moral equivalence of non-human communities with human society, thereby extending the scope of ethical consideration to all living beings.

The *tawhid*-based understanding of nature has practical implications for environmental education and policy. Dallh (2024), in discussing Islamic approaches to integral ecology, argues that the *tawhid* principle provides a holistic framework that integrates environmental, social, and spiritual dimensions of sustainability. This contrasts with reductionist approaches that compartmentalize environmental issues as separate from ethical or spiritual concerns. Within educational settings, the *tawhid* perspective can help students develop a relational understanding of their place within the web of life, fostering empathy, responsibility, and a sense of sacred connection to the natural world.

3. *Mizan*: Balance and Cosmic Equilibrium

The Quranic concept of *mizan* (balance) affirms that the natural world was created in a state of harmonious equilibrium, and that human beings bear the responsibility to maintain this balance. Surah Ar-Rahman (55:7–9) states: "And the heaven He raised and imposed the balance. That you not transgress within the balance. And establish weight in justice and do not make deficient the balance." These verses, as analyzed by Bakar et al. (2025) and Muhammad & Badar (2024), establish balance as both a cosmological principle and an ethical imperative, requiring moderation in consumption, production, and interaction with natural systems.

The disruption of ecological balance through pollution, deforestation, over-extraction, and habitat destruction is thus framed as a transgression against the divine order. Saged & Aly (2025) argue that the Quran's warnings against *fasad* (corruption) on Earth exemplified by Surah Al-Baqarah (2:205) and Surah Ar-Rum (30:41) directly address the consequences of environmental degradation. Eser (2024) provides a detailed exegetical analysis of these verses, demonstrating their relevance to contemporary environmental problems including desertification, oceanic pollution, and climate disruption. The Quranic injunction "Do not cause corruption on the Earth after it has been set in order" (Surah Al-A'raf, 7:56) serves as a clear prohibition against activities that undermine ecological stability (Rohman & Ibrahim, 2022).

4. *Israf*: The Prohibition of Wastefulness

The Quran explicitly prohibits *israf* (wastefulness and extravagance), a principle with direct relevance to contemporary patterns of overconsumption and resource depletion. Surah Al-A'raf (7:31) commands, "Eat and drink, but be not excessive. Indeed, He likes not those who commit excess." Muhammad & Badar (2024) analyze the ecological dimensions of this prohibition, arguing that the Quranic ethic of moderation

provides a powerful counter-narrative to the consumerist ideologies that drive environmental degradation in the modern world. Yaacob & Yaacob (2012) similarly emphasize that Islamic teachings on resource management prescribe careful, grateful, and moderate use of natural resources, ensuring their availability for future generations.

The *israf* principle resonates strongly with the sustainability concept of intergenerational equity and the carrying capacity of ecosystems. Safee & Yunus (2015), in their study of environmental sustainability in Islam, argue that the Quranic prohibition of waste extends beyond food and drink to encompass water, energy, land, and all natural resources. This principle provides a theological foundation for sustainable consumption policies, circular economy models, and resource conservation strategies that align with both Islamic values and the United Nations Sustainable Development Goals.

5. Quranic Verses and Environmental Education Values

The Quran contains a substantial corpus of verses addressing environmental themes. Aboul-Enein (2018) identifies 88 verses across 42 chapters (*surahs*) that pertain to environmental health, sustainability, and the human relationship with nature. Munajib (2023), employing the *maudui* (thematic) interpretation method, systematically categorizes Quranic verses on environmental education, identifying themes including water conservation, land management, biodiversity protection, and the moral consequences of ecological destruction. Rahman et al. (2024) adopt a socio-eco-religio-cultural approach to environmental damage, integrating Quranic and *Hadith*-based analysis with sociological perspectives to demonstrate the multidimensional character of Islamic environmental teachings.

Acim & Suharti (2023) contribute to this discourse through their analysis of *fiqh al-bi'ah* (environmental jurisprudence) in the Quran, examining how *ulama* (Islamic scholars) in Lombok, Indonesia, interpret Quranic environmental verses in relation to local ecological challenges. Their study reveals that the Quran's ecological teachings are contextually adaptable, capable of addressing region-specific environmental issues through the lens of Islamic legal reasoning. (Muhammad & Badar, 2024) further confirm the contemporary relevance of Quranic environmental messages, arguing that the scripture's emphasis on sustainability, conservation, and ethical resource use remains as pertinent today as when it was first revealed.

Islamic Education with an Ecological Perspective: Conceptualization and Implementation

Building upon the Quranic ecological principles discussed above, a growing body of scholarship explores how these principles can be—and have been—integrated into Islamic educational systems. The concept of Islamic education with an ecological perspective represents a pedagogical paradigm that bridges religious instruction and environmental literacy, aiming to produce graduates who understand environmental stewardship as a dimension of their faith Rekan et al. (2024).

1. Conceptual Foundations

The conceptual foundations of ecological Islamic education draw from multiple intellectual traditions. From the Islamic side, the principles of *khilafah*, *tawhid*, *mizan*, and *israf* provide the theological grounding for environmental responsibility. From the

educational side, the framework draws upon ecopedagogy—a critical pedagogical approach that integrates ecological awareness into the educational process—and Education for Sustainable Development (ESD), the UNESCO-promoted approach that seeks to empower learners with the knowledge, skills, and values needed for a sustainable future (Abdullah et al., 2026; Maslani et al., 2023).

Maslani et al. (2023) conduct an ethnographic exploration of environmental preservation strategies in *pesantren*, revealing that ecopedagogy in Islamic boarding schools involves not merely the transmission of ecological knowledge but the cultivation of an eco-spiritual consciousness—a holistic awareness of the sacred character of nature and the religious duty of environmental care. This approach transforms the *pesantren* from a purely religious institution into a site of integrated ecological and spiritual formation, producing students who view environmental action as an expression of worship (*ibadah*).

2. Curriculum Development and Integration

Several studies document the practical integration of ecological perspectives into Islamic curricula. Amrullah et al. (2025), in their study of SMAN 2 and SMAN 7 in Malang, Indonesia, describe strategies for combining Islamic education with environmental programs, including the development of character education modules that emphasize environmental responsibility, the integration of environmental themes into religious instruction, and the establishment of school-based environmental projects such as waste management and tree planting. Their findings indicate that this integration enhances students' environmental awareness, fosters pro-environmental attitudes, and strengthens the perceived connection between religious devotion and ecological action.

Taufiqurrochman (2025) analyzes the curriculum of *madrasah* and *pesantren* in Indonesia, examining the potential for linking environmental education with Arabic language teaching. This innovative approach embeds ecological vocabulary, concepts, and themes within Arabic language instruction, enabling students to engage with Quranic environmental texts in their original language while simultaneously developing ecological literacy. The study demonstrates that curriculum integration need not be limited to science or social studies courses but can permeate the entire educational experience, including language arts and humanities.

Fua et al. (2018) examine the formation of environmental awareness in *pondok pesantren* (Islamic boarding schools) in Indonesia, documenting how religious instruction is complemented by practical activities such as community clean-ups, organic gardening, recycling, and the creation of green spaces. Their research reveals that the experiential dimension of learning—hands-on engagement with environmental issues in the immediate surroundings—is particularly effective in cultivating a lasting sense of eco-spirituality and environmental responsibility among students.

3. Institutional Models and Case Studies

The reviewed literature presents several innovative institutional models that exemplify Islamic education with an ecological perspective. Aziz Rekan & Mokhtar (2025) describe the Eco-*Tahfiẓ* initiative in Malaysia, which combines Quranic memorization (*tahfiẓ*) with environmental sustainability programming. This model aligns

with both national sustainability policies and global frameworks such as the SDGs, demonstrating that traditional Islamic educational practices can be adapted to address contemporary ecological challenges without compromising their religious integrity.

Hadisi et al. (2025) investigate the role of spiritual leadership in internalizing environmental values in Islamic *eco-madrasahs* in Southeast Sulawesi, Indonesia. Their study reveals that the leadership of school administrators and religious teachers (*ustadz*) is critical in establishing an institutional culture of environmental care. Through modeling eco-conscious behavior, integrating environmental themes into daily prayers and reflections, and engaging the wider community in conservation projects, spiritual leaders create a comprehensive ecological learning environment that extends beyond the formal curriculum.

Karman et al. (2023) explore Quranic learning based on Islamic eco-theology at *pesantren*, demonstrating how the study of the Quran can be oriented toward ecological themes through careful selection of verses, guided discussion, and reflection on the implications of Quranic teachings for environmental practice. In a related study, Karman et al. (2025) investigate the Quranic reception of *pesantren* residents toward environmental conservation, finding that the engagement with Quranic ecological texts significantly influences residents' environmental attitudes and behaviors.

4. Faith-Based Ecological Counseling

An emerging area within Islamic ecological education is the development of faith-based ecological counseling models for Muslim students. Hidayat et al. (2026) present a model that integrates spiritual teachings with sustainability principles, utilizing individual and group counseling sessions to address environmental apathy, eco-anxiety, and the development of sustainable behaviors. This model draws upon Islamic spiritual practices such as *tafakkur* (contemplation of God's creation), *dhikir* (remembrance of God through nature), and *muhasabah* (self-examination of one's environmental impact), demonstrating that psychological and counseling approaches can be enriched by theological resources to promote ecological well-being.

5. Teacher Preparedness and Instructional Approaches

The effectiveness of ecological Islamic education depends significantly on the preparedness and competence of teachers. Rekan et al. (2024) examine the instructional approaches of Islamic education teachers in preparing future Muslim generations for environmental challenges. Their study reveals that while many teachers recognize the importance of environmental education, they often lack the training, resources, and pedagogical strategies necessary to integrate ecological themes effectively into their instruction. The study recommends the development of professional development programs that equip Islamic education teachers with the knowledge and skills to deliver ecologically informed religious instruction.

Contributions to Sustainable Development

The integration of ecological perspectives into Islamic education has significant implications for sustainable development, both within Muslim-majority countries and in the global community.

1. Alignment with the Sustainable Development Goals

The reviewed literature consistently identifies strong alignment between Islamic ecological principles and the United Nations Sustainable Development Goals. Elihami & Pajarianto (2025) conduct a comprehensive literature review on sustainable development goals through Islamic education, demonstrating that Islamic teachings on environmental stewardship, social justice, equitable resource distribution, and intergenerational responsibility correspond closely with SDGs 4 (Quality Education), 6 (Clean Water and Sanitation), 12 (Responsible Consumption and Production), 13 (Climate Action), 14 (Life Below Water), and 15 (Life on Land). This alignment suggests that Islamic educational institutions, which serve millions of students worldwide, represent a powerful and underutilized platform for advancing the SDGs.

Bsoul et al. (2022) provide a conceptual analysis of Islam's perspective on environmental sustainability, arguing that the convergence of Islamic values and international sustainability frameworks creates opportunities for Muslim-majority countries to develop culturally resonant and religiously motivated sustainability policies. Abdullah et al. (2026) further advance this argument by exploring how sustainable Islamic management education can be enhanced through Education for Sustainable Development principles, proposing institutional reforms that embed sustainability across all dimensions of Islamic higher education.

2. Community Engagement and Environmental Action

The ecological dimension of Islamic education extends beyond the classroom into community engagement and collective environmental action. Fua et al. (2018) document how *pesantren*-based environmental programs mobilize not only students but also surrounding communities in conservation activities. The *pesantren*, as a community-embedded institution with deep social authority and cultural legitimacy, serves as a catalyst for environmental behavior change at the community level. Similarly, Hadisi et al. (2025) describe how *eco-madrasah* programs engage parents, community leaders, and local government in environmental initiatives, creating a multiplier effect that amplifies the impact of educational interventions.

3. Policy Implications and Environmental Governance

The Quranic ecological framework has implications for environmental governance and policy in Muslim-majority countries. Rohman & Ibrahim (2022) examine how religious values from the Quran have been transferred into Indonesian environmental law, revealing both opportunities and challenges in the institutionalization of Islamic environmental ethics within secular legal frameworks. Bhat (2024) explores the legal implications of environmental crimes in Islamic jurisprudence, arguing that the *Sharia* provides mechanisms for environmental accountability, including prohibitions against pollution, deforestation, and the destruction of natural habitats.

Rahman et al. (2024) advocate for socio-eco-religio-cultural approaches to addressing environmental damage, arguing that policy interventions are most effective when they draw upon the cultural and religious values of the communities they serve. In the context of Muslim-majority societies, this means that environmental policies should be framed not only in terms of economic efficiency or scientific necessity but also in

terms of religious obligation and moral duty. Saged & Aly (2025) propose a *maqasid*-based framework for environmental protection that prioritizes the preservation of life, progeny, and property through sustainable environmental management.

4. Interfaith Cooperation and Global Environmental Activism

The Quranic ecological ethic provides a foundation for Muslim engagement in global environmental activism and interfaith cooperation. Foltz (2009), in his analysis of Islam within the broader context of religion and ecology, identifies shared values between Islamic, Christian, Jewish, Buddhist, and Indigenous environmental ethics—particularly the themes of stewardship, sacred creation, and moral responsibility. These shared values create opportunities for interfaith collaboration on environmental issues, leveraging the collective influence of religious communities to advance global sustainability goals.

Ball (2025) similarly argues for the integration of Islamic perspectives into multicultural and religious approaches to biodiversity conservation, noting that the Quran's emphasis on biodiversity and the sanctity of all species aligns with international conservation frameworks. The potential for faith-based environmental coalitions that bridge cultural and religious boundaries represents a significant and largely unrealized opportunity for global environmental governance.

Challenges and Future Directions

Despite the promising developments documented in the reviewed literature, several challenges remain. First, the integration of ecological perspectives into Islamic education is uneven and often dependent on the initiative of individual teachers, school leaders, or community organizations rather than on systematic institutional policy (Rekan et al., 2024). Second, there is a tension between economic development pressures—particularly in rapidly industrializing Muslim-majority countries—and the Quranic ethic of ecological moderation and restraint (Foltz, 2009). Third, varying interpretations of Quranic environmental teachings among scholars and communities can create uncertainty about the scope and application of ecological responsibilities (Acim & Suharti, 2023; Bakar et al., 2025).

Additionally, several methodological limitations of the present review should be acknowledged. The exclusive reliance on the Scopus database may have excluded relevant publications indexed in other databases such as Web of Science, ERIC, or regional Islamic studies repositories. The quality appraisal process, while systematic, involved a degree of subjective judgment, particularly in the assessment of non-empirical theological studies. Furthermore, the predominance of Indonesian and Malaysian case studies in the included literature may limit the generalizability of findings to other Islamic educational contexts across the Middle East, Africa, South Asia, and the Muslim diaspora in Western countries.

Future research should address these challenges by conducting empirical studies that assess the effectiveness of ecological Islamic education programs in changing environmental knowledge, attitudes, and behaviors. Comparative studies across different Islamic educational contexts—*madrasah*, *pesantren*, *tahfiz*, and university—would be particularly valuable. Additionally, interdisciplinary research that bridges Islamic theology, environmental science, education theory, and public policy is needed to develop comprehensive frameworks for Islamic ecological education that are both theologically grounded and empirically informed.

CONCLUSION

This systematic literature review concludes that the Quran provides a comprehensive ecological ethic rooted in the principles of khilafah (stewardship), tawhid (divine unity), mizan (balance), and the prohibition of israf (wastefulness). The findings reveal that Islamic educational institutions, particularly through innovative models like *eco-pesantren* and *eco-madrasah*, have successfully integrated these values into their curricula. By fostering an eco-spiritual consciousness, these programs ensure that students perceive environmental protection not just as a civic duty, but as a fundamental dimension of their religious identity and practice. Furthermore, the substantial alignment between Quranic values and the United Nations Sustainable Development Goals (SDGs) positions Islamic education as a powerful, underutilized platform for global sustainability. To fully realize this potential, concerted action is required across multiple levels: schools must systematically reform their curricula, religious leaders must model sustainable behaviors within their communities, and governments should develop environmental policies that resonate with the cultural and religious values of their populations. Such integration allows for a holistic approach that bridges the gap between faith-based formation and global environmental literacy.

However, the study acknowledges certain methodological limitations, including the exclusive reliance on the Scopus database, a language bias toward English and Indonesian, and a heavy geographical focus on Southeast Asia. To address these gaps, future research should employ longitudinal quantitative studies to measure the long-term behavioral impact of ecological curricula on students. Additionally, comparative studies across diverse regions such as the Middle East and Africa, along with the inclusion of literature in languages like Arabic and Turkish, are essential to develop a more inclusive, empirically validated, and globally representative framework for Islamic environmental education.

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