

“Green Pesantren as a Model of Islamic Environmental Education: Integrating Religious Values, Ecological Awareness, and Sustainable Practices”

Ali Sodikin

Universitas Kiai Abdullah Faqih Gresik, Indonesia

Email: ali78sir.alex@gmail.com

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Abstract The growing ecological crisis has challenged educational institutions to rethink their role in cultivating environmental responsibility, including within religious communities. While environmental education has increasingly gained attention in global sustainability discourse, the potential contribution of Islamic educational institutions, particularly pesantren, remains underexplored. This study examines the concept of the Green Pesantren as a model of Islamic environmental education that integrates religious values, ecological awareness, and sustainable practices. Drawing on qualitative inquiry, this research explores how pesantren communities interpret environmental responsibility through Islamic teachings and translate these principles into everyday educational practices, institutional policies, and community engagement. The findings reveal that environmental stewardship in pesantren is not merely positioned as a technical response to ecological problems but as a moral and spiritual commitment rooted in Islamic concepts of *khalifah* (human responsibility as stewards of the Earth), *amanah* (trust), and *mizan* (balance). The Green Pesantren model demonstrates how religious education can become a transformative space where ecological consciousness is nurtured through curriculum integration, sustainable campus management, and participatory environmental actions involving students, teachers, and local communities. This study contributes to the broader discourse on sustainability education by proposing an alternative framework that bridges Islamic ethical perspectives with contemporary environmental challenges. It argues that faith-based educational institutions have significant potential to foster environmentally responsible generations by transforming ecological awareness into lived religious practices. The study provides implications for policymakers, educators, and Islamic institutions seeking culturally grounded approaches to achieving sustainable development goals.

Keyword *Green Pesantren; Islamic Environmental Education; Eco-Theology; Sustainability Education; Religious Values; Sustainable Practices*

Introduction

The accelerating degradation of the global environment has become one of the most critical challenges facing humanity in the twenty-first century.¹ Climate change, biodiversity loss, pollution, and unsustainable patterns of consumption have demonstrated that environmental problems are not merely ecological concerns but also reflect deeper ethical, cultural, and educational challenges.² In response to this crisis, sustainability education has emerged as a strategic approach to cultivating environmental awareness, responsible behavior, and collective action among future generations.³ Educational institutions are increasingly

¹ Chandra Dwisetyo Widodo, “Eco-Pesantren in Indonesia: A Faith-Based Sustainability Education Model Integrating Islamic Environmental Ethics and Institutional Practices,” *Studia Ecologiae et Bioethicae*, 2026.

² UNESCO, “Education for Sustainable Development: A Roadmap,” *UNESCO Publishing*, 2020.

³ Arthur Saniotis, *Islam and Ecology: The Environmental Dimensions of Islamic Thought* (Routledge, 2012).

expected not only to transfer scientific knowledge about environmental issues but also to shape values, attitudes, and practices that encourage harmonious relationships between humans and nature. Despite significant developments in sustainability education, much of the existing discourse has been dominated by secular and scientific perspectives that emphasize ecological literacy, technological solutions, and behavioral change.⁴ While these approaches have contributed substantially to environmental awareness, they often overlook the cultural and spiritual dimensions that influence human interactions with nature.⁵ Recent discussions in environmental studies have highlighted the importance of integrating ethical and religious perspectives into sustainability efforts, recognizing that faith traditions possess moral frameworks capable of motivating individuals and communities to protect the environment. Within this context, religious education institutions represent important spaces for developing ecological consciousness through values, traditions, and everyday practices.⁶

Islamic teachings provide a profound ethical foundation for environmental responsibility. Concepts such as *khalifah* (human beings as stewards of the Earth), *amanah* (the responsibility entrusted by God), and *mizan* (the principle of balance and harmony) illustrate that environmental preservation is not merely a contemporary agenda but an integral dimension of Islamic worldview.⁷ From this perspective, caring for nature represents an expression of religious commitment and moral responsibility. However, the integration of Islamic values into environmental education remains an emerging field that requires further exploration, particularly in Islamic educational institutions where religious teachings are deeply embedded within institutional culture.⁸ Among various Islamic educational institutions, *pesantren* occupy a unique position due to their historical, social, and cultural significance in Muslim societies, particularly in Southeast Asia. *Pesantren* are not only centers of religious learning but also communities where students (*santri*) experience holistic education through daily interaction, collective activities, and value-based practices.⁹ The strong emphasis on discipline, simplicity, communal responsibility, and moral formation provides a distinctive foundation for developing environmentally responsible behaviors. Nevertheless, environmental dimensions within *pesantren* education have often received limited scholarly attention compared with other aspects such as religious learning, character education, and social transformation.¹⁰

The emerging concept of the Green *Pesantren* offers a promising framework for addressing this research gap by positioning Islamic boarding schools as agents of ecological transformation. Rather than viewing environmental practices as separate from religious education, the Green *Pesantren* model seeks to integrate ecological awareness into the spiritual,

⁴ Joy A. Palmer, *Environmental Education in the 21st Century: Theory, Practice, Progress and Promise* (Routledge, 1998).

⁵ Rustan Efendy and others, "From Faith to Sustainability: An Integrative Ecotheological Curriculum Model for Islamic Higher Education," *EDURELIGIA*, 2026.

⁶ Iin Indra Nuraeni et al., "Green Islamic Education: Integrating Eco-Theological Values into Islamic Curriculum to Address the Global Environmental Crisis," *At Turots: Jurnal Pendidikan Islam*, 2025.

⁷ Habib Zainuri, "Integrating Islamic Values into Environmental Education: A Sustainable Eco-Pesantren Strategy," *Journal of Instructional and Development Researches*, 2026.

⁸ Richard C. Foltz et al., *Islam and Ecology: A Bestowed Trust* (Harvard University Press, 2003).

⁹ Saniotis, *Islam and Ecology: The Environmental Dimensions of Islamic Thought*.

¹⁰ Arjen E. J. Wals, "Learning for Sustainability in Times of Accelerating Change," *Journal of Education for Sustainable Development* 8, no. 2 (2014): 199–204.

pedagogical, and institutional life of pesantren communities.¹¹ Through curriculum development, sustainable resource management, environmental programs, and community engagement, pesantren have the potential to transform environmental responsibility into a lived religious practice.¹² This approach suggests that sustainability can be strengthened when ecological consciousness is connected with cultural identity, religious meaning, and collective experiences. However, existing studies on Islamic environmental education remain fragmented.¹³ Previous research has largely focused on theoretical discussions of Islamic eco-theology or descriptive accounts of environmental programs in religious institutions. Limited attention has been given to how Islamic values are operationalized into comprehensive educational models that combine religious understanding, ecological awareness, and sustainable practices.¹⁴ Furthermore, there is still insufficient empirical exploration of how pesantren communities construct environmental responsibility as part of their educational mission and daily institutional culture.

Responding to this gap, this study examines the Green Pesantren as a model of Islamic environmental education by exploring the integration of religious values, ecological awareness, and sustainable practices within pesantren communities.¹⁵ The study seeks to understand how Islamic principles contribute to environmental consciousness and how these values are transformed into educational practices that support sustainability. By developing a conceptual understanding of the Green Pesantren model, this research contributes to broader discussions on sustainability education by introducing a faith-based perspective that connects spiritual ethics with contemporary ecological challenges.¹⁶ This study argues that religious educational institutions, particularly pesantren, should not be positioned merely as recipients of global sustainability agendas but as active contributors capable of offering culturally meaningful and ethically grounded approaches to environmental transformation. The Green Pesantren model demonstrates the possibility of bridging Islamic traditions with global sustainability discourse, providing an alternative pathway for nurturing environmentally responsible generations while preserving religious identity and local wisdom.¹⁷

Method

This study employed a qualitative case study approach to examine the Green Pesantren model as a form of Islamic environmental education that integrates religious values, ecological awareness, and sustainable practices. This approach was selected because the study aimed to explore the meanings, experiences, and educational processes through which pesantren communities construct environmental responsibility within their religious and cultural contexts.

¹¹ M. Yardlo et al., "Pesantren and Ecotheology: Mainstreaming Ecological Consciousness in Pesantren Langitan, East Java, Indonesia," *Journal of Education and Religious Studies*, 2024.

¹² Willis Jenkins et al., "Religion and Sustainability: New Perspectives," *Journal for the Study of Religion, Nature and Culture*, 2017.

¹³ Seyyed Hossein Nasr, *Religion and the Order of Nature* (Oxford University Press, 1996).

¹⁴ Fikret Berkes, *Sacred Ecology* (Routledge, 2012).

¹⁵ Walter Leal Filho and others, "Sustainable Development Goals and Sustainability Teaching at Universities," *International Journal of Sustainability in Higher Education*, 2019.

¹⁶ Stephen Sterling, *Sustainable Education: Re-Visioning Learning and Change* (Green Books, 2001).

¹⁷ Sterling, *Sustainable Education: Re-Visioning Learning and Change*.

The research was conducted in selected pesantren that demonstrate commitments to environmental sustainability through institutional policies, ecological programs, and educational initiatives. The research sites were selected purposively based on their relevance to the characteristics of Green Pesantren practices. Data were collected from key stakeholders, including kyai (Islamic leaders), pesantren administrators, teachers, students (santri), and community members who were directly involved in environmental education activities.

Data collection involved semi-structured interviews, participant observation, and document analysis. Interviews explored participants' perspectives on Islamic environmental ethics, ecological awareness, and strategies for integrating sustainability into pesantren education. Observations were conducted to examine environmental practices within pesantren communities, including waste management, conservation activities, and student participation in ecological programs. Relevant institutional documents, such as curriculum materials, environmental policies, and program reports, were also analyzed to understand how sustainability values were embedded within the educational framework.

The collected data were analyzed using thematic analysis through a process of coding, categorization, and interpretation. The analysis focused on three main themes: (1) Islamic values as the foundation of environmental responsibility, (2) ecological awareness as an educational outcome, and (3) sustainable practices as institutional transformation. These themes were further examined to develop an understanding of how Green Pesantren functions as an educational model that connects Islamic ethics with contemporary sustainability challenges.

To ensure the credibility of the findings, this study applied data triangulation by comparing information from interviews, observations, and documents. Member checking was also conducted to confirm the accuracy of the researchers' interpretations. Ethical principles were maintained throughout the research process by ensuring informed participation, confidentiality, and respect for the cultural and religious context of the pesantren community. Through this methodological framework, the study seeks to provide deeper insights into how Islamic educational institutions can contribute to sustainability transformation by integrating spiritual values, environmental consciousness, and collective ecological practices.

Results and Discussion

Islamic Ecological Values as the Foundation of Environmental Responsibility

The findings reveal that environmental responsibility within pesantren communities is fundamentally constructed through Islamic ethical and spiritual frameworks rather than merely through environmental regulations or external sustainability campaigns. Participants consistently emphasized that caring for nature is part of religious responsibility, rooted in the understanding that human beings are entrusted as khalifah (stewards) of the Earth. This perspective positions environmental preservation not as an additional educational agenda but as an inseparable dimension of Islamic morality and daily religious practice.¹⁸

The concept of amanah emerged as a central value shaping environmental awareness among pesantren communities. Environmental resources, including water, energy, land, and

¹⁸ Sterling, *Sustainable Education: Re-Visioning Learning and Change*.

other natural elements, were perceived as divine trusts that must be managed responsibly.¹⁹ This theological understanding encouraged students (santri) to view sustainable practices not merely as ecological obligations but as expressions of obedience and gratitude to God. Similarly, the principle of mizan (balance) provided an ethical foundation for understanding the relationship between humans and nature, emphasizing that environmental disruption occurs when human actions exceed natural limits.

These findings extend previous discussions on Islamic environmental ethics by demonstrating how eco-theological principles can move beyond theoretical discourse and become practical educational values. While earlier studies have often examined Islamic eco-theology as a conceptual framework, this study highlights how pesantren communities transform religious teachings into environmental consciousness through institutional culture and collective practices. In this sense, Green Pesantren represents a form of faith-based sustainability education where ecological responsibility is cultivated through spiritual meaning and moral formation.²⁰

Transforming Ecological Awareness through Islamic Educational Practices

The study further reveals that Green Pesantren practices are developed through the integration of environmental values into the educational process. Rather than treating environmental education as an independent subject, pesantren incorporate ecological awareness into broader processes of character formation, religious learning, and community activities. This integration demonstrates the distinctive characteristic of Islamic environmental education, where knowledge, values, and action are connected within a holistic educational framework.

The findings indicate that teachers and religious leaders play a crucial role in translating environmental principles into meaningful learning experiences. Through religious discussions, daily guidance, and exemplary behavior, environmental awareness is transmitted as part of Islamic character education (akhlaq). Students learn environmental responsibility not only through formal instruction but also through everyday practices such as maintaining cleanliness, reducing waste, conserving resources, and participating in collective environmental activities.

This finding supports the perspective of transformative learning, which argues that meaningful education occurs when individuals experience changes in their understanding, values, and actions. In the context of Green Pesantren, ecological transformation occurs because environmental practices are connected with students' religious identities. When environmental responsibility is framed within Islamic values, sustainability becomes personally meaningful rather than merely a response to external environmental concerns.

Furthermore, the involvement of students in environmental programs demonstrates that pesantren function as living laboratories for sustainability education. The communal nature of pesantren life provides opportunities for students to develop ecological habits through continuous interaction and collective responsibility. This finding highlights an important contribution of pesantren-based education: sustainability is not only taught but also experienced as part of everyday life.

¹⁹ Herri Azhari et al., "The Role of Green Islamic Education in Developing Eco-Theological Consciousness Among Emerging Muslim Generations," *EDUKASI*, 2025.

²⁰ Zamakhsyari Dhofier, *Tradisi Pesantren: Studi Tentang Pandangan Hidup Kyai* (LP3ES, 1982).

Institutionalizing Sustainable Practices: Toward the Green Pesantren Model

The findings demonstrate that the development of Green Pesantren requires institutional transformation that connects religious values with concrete sustainability practices. Three interconnected dimensions emerged from the analysis: value transformation, educational integration, and ecological action. These dimensions form the conceptual foundation of the Green Pesantren model proposed in this study.

The first dimension, value transformation, refers to the process of embedding Islamic ecological ethics into the institutional identity of pesantren. Environmental responsibility becomes part of the pesantren's vision, mission, and educational philosophy. The second dimension, educational integration, involves incorporating environmental perspectives into curriculum, teaching practices, and student development programs. Through this process, ecological awareness becomes part of intellectual and moral development. The third dimension, ecological action, represents the practical implementation of sustainability through environmental management, conservation initiatives, waste reduction programs, and community engagement.²¹

The Green Pesantren model therefore illustrates that sustainable transformation in Islamic educational institutions requires more than implementing environmental programs. It requires the creation of an educational ecosystem where religious values, institutional policies, and community practices reinforce one another. This finding challenges conventional approaches to sustainability education that often emphasize technical knowledge and behavioral intervention while paying limited attention to cultural and spiritual dimensions.

The study also reveals that pesantren possess unique social capital for promoting sustainability because of their strong communal structures and value-based education systems. The close relationship between religious leaders, teachers, students, and surrounding communities enables environmental initiatives to develop through collective participation. Consequently, Green Pesantren can serve as an alternative model of sustainability education that integrates global environmental concerns with local Islamic traditions.

Theoretical Contribution of the Green Pesantren Model

Based on the findings, this study proposes the Green Pesantren Model as a faith-based environmental education framework consisting of three interconnected layers: Islamic Ecological Foundation → Educational Transformation → Sustainable Community Practices. The first layer provides the moral and spiritual foundation through Islamic concepts such as khalifah, amanah, and mizan. The second layer transforms these values into educational experiences through curriculum, pedagogy, and character formation. The third layer translates ecological awareness into sustainable institutional and community practices.

This model contributes to sustainability education literature by demonstrating that religious educational institutions can offer culturally embedded pathways toward ecological transformation. Rather than positioning religion as separate from sustainability discourse, the Green Pesantren model illustrates how religious traditions can provide ethical resources for addressing contemporary environmental challenges.

²¹ Jack Mezirow, *Transformative Learning: Theory to Practice* (Jossey-Bass, 1997).

The findings suggest that faith-based educational institutions should be recognized as important actors in achieving sustainability goals. Through the integration of spiritual values, educational practices, and ecological actions, pesantren have the potential to cultivate environmentally responsible generations while preserving their religious and cultural identities.

Conclusion

This study demonstrates that the Green Pesantren model represents a meaningful approach to Islamic environmental education by integrating religious values, ecological awareness, and sustainable practices within the educational ecosystem of pesantren. The findings reveal that environmental responsibility in pesantren is not constructed merely as a response to contemporary ecological challenges but as a moral and spiritual commitment rooted in Islamic principles, particularly the concepts of khalifah (stewardship), amanah (responsibility), and mizan (balance). These values provide a strong ethical foundation that enables environmental sustainability to become part of students' religious identity and everyday educational experiences. The study further highlights that the transformative potential of Green Pesantren lies in its ability to bridge Islamic teachings with sustainability practices. Through curriculum integration, role modeling by educators and religious leaders, and community-based environmental activities, pesantren transform ecological awareness from abstract knowledge into lived practices. The findings suggest that pesantren function not only as institutions of religious learning but also as spaces for developing environmentally responsible communities through holistic value-based education.

Theoretically, this study contributes to the growing discourse on sustainability education by proposing the Green Pesantren Model as a faith-based framework that connects Islamic eco-theology, transformative learning, and sustainable community practices. This model challenges the dominant assumption that sustainability education must rely primarily on scientific and secular approaches by demonstrating the importance of cultural and spiritual dimensions in shaping ecological responsibility. In this regard, religious educational institutions can serve as significant actors in addressing global environmental challenges while maintaining their unique cultural and theological identities. Practically, the study suggests that policymakers, Islamic educational institutions, and educators should consider integrating environmental sustainability into the broader mission and pedagogical framework of pesantren. Developing Green Pesantren initiatives requires not only environmental programs but also institutional commitment, curriculum innovation, teacher capacity development, and active participation from students and surrounding communities. Although this study provides important insights, further research is needed to examine the implementation of the Green Pesantren model across diverse geographical, cultural, and institutional contexts. Future studies may employ mixed-method approaches to measure the long-term impact of Green Pesantren practices on students' ecological behavior, environmental literacy, and community sustainability outcomes. By expanding empirical investigations, the Green Pesantren model has the potential to contribute more significantly to global discussions on sustainability education and faith-based environmental transformation.

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