

Green Islamic education: integrating eco-theological values into Islamic curriculum to address the global environmental crisis

lin Indra Nuraeni ^{a,1,*}, Elis Ela Susila ^{b,2}, Neni Utami Adiningsih ^{c,3}, Sunsun Pradana Yogaswara ^{d,4}, Lina Tio ^{e,5}

^aInstitut Teknologi dan Kesehatan Mahardika, Cirebon, Indonesia

^bSekolah Tinggi Agama Islam Al Musdaryyah, Kota Cimahi, Indonesia

^cRaudhatul Athfal Alif, Bandung, Indonesia

^dSMK Bina Negara Baleendah, Bandung, Indonesia

^eLincoln University, Malaysia

¹iinindranuraeni44@gmail.com; ²susilaelisela@gmail.com; ³neni.nua1@gmail.com;

⁴sunsunpradayogaswara76@gmail.com; ⁵lina.tio@unimy.ed.my;

*Correspondent

Received: 30-09-2025

Revised: 18-12-2025

Accepted: 18-12-2025

KEYWORDS

Islamic Education; Eco-Theology; Sustainable Development; Green Pesantren; Curriculum Reform; Environmental Ethics; Education for Sustainable Development (ESD)

ABSTRACT

The accelerating global environmental crisis, marked by climate change, biodiversity loss, and resource depletion, demands innovative educational approaches that foster ecological awareness and responsible behavior. Within the Muslim context, Islamic education offers a unique ethical framework rooted in eco-theological values such as khalifah (stewardship), amanah (trust), mizan (balance), and maslahah (public benefit), which can be strategically aligned with the principles of Education for Sustainable Development (ESD). This study seeks to explore how Green Islamic Education can integrate these eco-theological values into Islamic curricula as a transformative response to global ecological challenges. Employing a descriptive qualitative design, the research draws on document analysis, semi-structured interviews with educators and religious leaders, and field observations in Islamic schools and pesantren implementing green initiatives. The results reveal that Islamic educational institutions hold significant potential to embed sustainability values through curriculum reform, eco-pesantren practices, and green madrasa programs supported by digital pedagogy and community engagement. Empirical evidence demonstrates that environmental ethics, when framed as part of religious obligation, enhance students' ecological awareness, encourage sustainable lifestyles, and strengthen the linkage between faith and global responsibility.

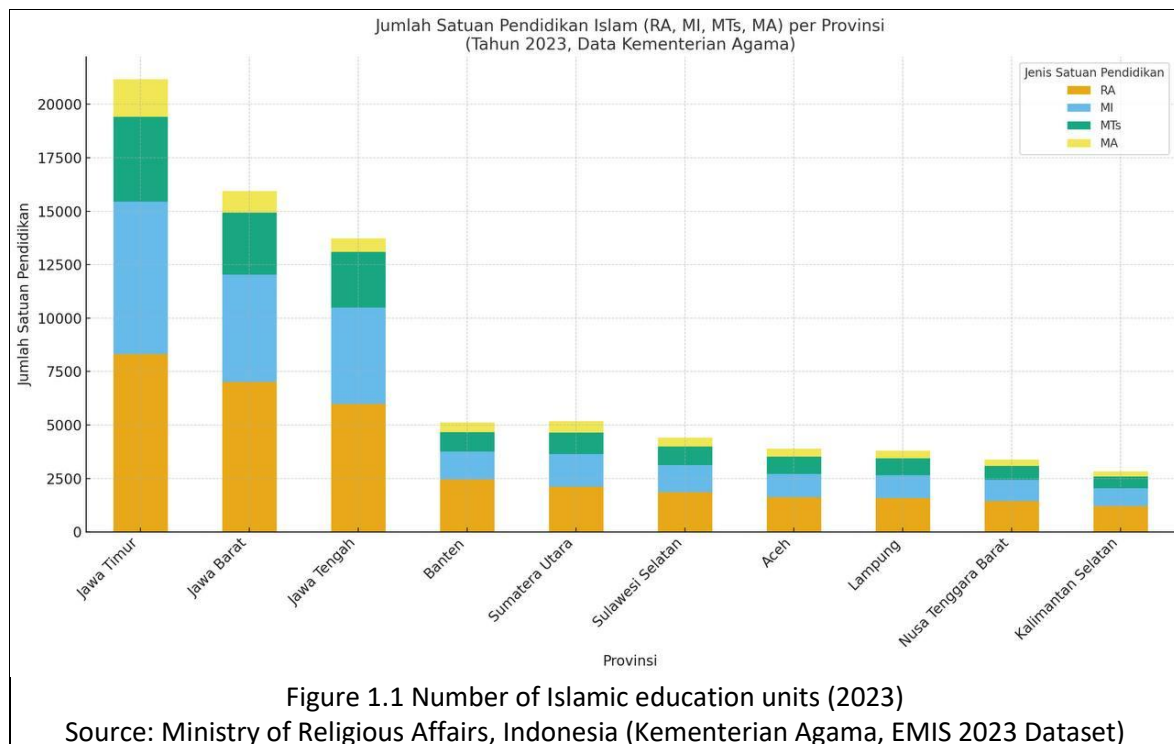
This is an open-access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license.



Introduction

The global environmental crisis continues to escalate, manifesting in climate change, biodiversity loss, deforestation, and widespread pollution that threaten human life and ecological stability. Scholars argue that these ecological disruptions are not merely scientific or technological concerns but also deeply ethical and spiritual issues that require a paradigm shift in human attitudes toward nature (Yamin et al., 2022). Education plays a crucial role in shaping such paradigms, and within the Muslim context, Islamic education provides an ethical foundation rooted in stewardship, justice, and balance.

The Qur'an and Hadith consistently emphasize the responsibility of humankind as khalifah fil ardh, a trustee of the Earth, who must preserve harmony and avoid fasad, or destruction. Yet many Islamic educational institutions still concentrate on ritual dimensions, leaving ecological ethics marginalized in curricula and pedagogical practice. This gap limits the capacity of Muslim societies to link their faith-based teachings with contemporary global challenges, particularly sustainability. Addressing this disconnection requires a transformative educational model that embeds eco-theological values into Islamic learning at all levels. The concept of Green Islamic Education emerges as a strategic response to integrate ecological consciousness with spiritual responsibility. This integration is vital in ensuring that Islamic pedagogy not only produces pious individuals but also nurtures environmentally conscious citizens who can contribute to solving global ecological problems.



The chart illustrates the distribution of Islamic educational institutions (RA, MI, MTs, and MA) across the ten provinces with the highest concentration in Indonesia for 2023. East Java leads significantly with more than 20,000 units, followed by West Java and Central Java, reflecting their large Muslim populations and long tradition of Islamic education. Other provinces such as Banten, North Sumatra, and South Sulawesi also demonstrate substantial numbers, while Aceh and West Nusa Tenggara highlight the regional diversity of Islamic schooling. The stacked bars reveal how Raudhatul Athfal (RA) and Madrasah Ibtidaiyah (MI) dominate in quantity compared to Madrasah Tsanawiyah (MTs) and Madrasah Aliyah (MA), emphasizing the importance of early childhood and basic education in the Islamic education system. This distribution underscores both the scale and the strategic role of madrasahs in Indonesia's educational landscape, serving as key agents for character formation and value-based learning in Muslim communities.

Sustainable development has been a central discourse since the Brundtland Report of 1987, emphasizing intergenerational responsibility and balance between economic, social, and environmental dimensions. Education for Sustainable Development (ESD) reflects this vision by cultivating knowledge, values, and behaviors that support ecological resilience and social equity (Sari, 2023). Within Islamic contexts, ESD resonates strongly with the principles of tawazun (balance), maslahah (public good), and amanah (trust), which highlight humanity's duty to sustain

creation. However, the literature indicates that most Islamic curricula in Indonesia and other Muslim-majority countries remain rooted in classical approaches that prioritize ritual learning while underrepresenting ecological issues (Hajar, 2024).

Islamic teachings already provide strong ecological ethics, their practical integration into educational frameworks is still limited and fragmented. The novelty of recent discussions lies in positioning Islamic education as a critical vehicle for embedding sustainability values that align with global goals while remaining rooted in religious traditions. Case studies on eco-pesantren and green schools highlight both the potential and challenges of faith-based environmental education. Research on green madrasas in West Lampung, for example, illustrates how curricular integration, environmentally friendly infrastructure, and participatory environmental activities foster ecological awareness among students (Junaidah et al., 2025).

These initiatives reflect the ability of Islamic schools to institutionalize sustainability values and instill responsible behavior through daily practices, such as waste management and reforestation. The implementation of green school programs in Islamic contexts is still relatively limited compared to public schools, revealing another gap in the literature (Juliani et al., 2024). The absence of systemic approaches in many Islamic institutions means that ecological ethics are often introduced sporadically, lacking coherence with broader educational policies. Integrating eco-theology into curricula can address this issue by making environmental preservation not an optional program but a fundamental component of Islamic learning. This shift requires rethinking pedagogy, teacher training, and institutional commitment to sustainability (Maghfiroh et al., 2024).

Islamic organizations have also begun to recognize the urgency of ecological issues and their alignment with Islamic teachings. Nahdlatul Ulama, Indonesia's largest Muslim organization, has initiated the Green Pesantren movement, demonstrating how religious institutions can contribute to climate change mitigation and ecological restoration (Maghfiroh et al., 2024). These programs link environmental activism with Islamic values, reframing conservation as an act of faith and devotion. The role of kyai, santri, and pesantren alumni is central in transmitting these values through education, community outreach, and environmental advocacy.

Research shows that the effectiveness of such programs is uneven, depending on institutional capacity, leadership commitment, and societal support (Sulaiman, 2021). More empirical studies are needed to explore how these initiatives can be scaled up and standardized across different contexts. The novelty of embedding eco-theology into Green Islamic Education lies in expanding such local initiatives into systemic curricular reforms that connect grassroots activism with formal education systems (Juhaidi et al., 2025).

The urgency of environmental preservation in Islamic education is also linked to the broader agenda of the Sustainable Development Goals (SDGs). The SDGs, with their 17 targets, stress the necessity of education as a transformative force in building sustainable societies. Islamic education, when infused with eco-theological values, directly supports these goals by forming ethical citizens who can participate in sustainability-oriented actions at local and global levels (Monica et al., 2025). Yet a significant gap persists in the empirical literature, as most studies focus either on the theoretical alignment between Islam and sustainability or on small-scale initiatives, leaving a lack of comprehensive models that integrate both.

Addressing this gap requires designing Green Islamic Education as a holistic framework that combines scriptural foundations, practical environmental actions, and institutional reforms. The novelty of this study lies in demonstrating how Islamic curricula can operationalize eco-theological values through structured pedagogical innovations, such as project-based learning, eco-pesantren, and digital environmental campaigns.

Islamic schools and universities in Indonesia face particular challenges in translating environmental values into teaching practices. While policies promoting green campuses and sustainability have emerged, the integration remains inconsistent and often limited to administrative programs rather than pedagogical transformation (Susila et al., 2024). Teachers are frequently not equipped with adequate training to embed environmental issues into their religious teaching. This gap results in a missed opportunity to align students' spiritual formation with ecological responsibility. Research demonstrates that when such integration is implemented, as in eco-pesantren models, students exhibit greater ecological awareness and connect sustainability practices with their religious obligations (Cahya Pratama et al., 2025). This highlights the novelty of reimagining Islamic teacher education as a core driver for ecological literacy, equipping educators to embed eco-theological perspectives into both content and pedagogy.

The literature further emphasizes the need to contextualize Islamic ecological education within contemporary technological and digital shifts. The digital era has created opportunities to expand environmental education through online platforms, interactive media, and global networks (Sari, 2025). Yet the integration of digital tools into Islamic ecological pedagogy is still underdeveloped, with most practices relying on conventional teaching. This gap highlights the necessity of exploring how technology can amplify eco-theological education, making it accessible and engaging for younger generations. Embedding eco-theology into digital Islamic education can create novel learning environments where students not only study religious texts but also engage in virtual environmental campaigns, simulations, and community-based projects. This innovation connects Islamic traditions with modern learning needs, providing a transformative pathway for sustainability education.

Empirical evidence shows that Islamic boarding schools that adopt eco-pesantren models succeed in cultivating students' ecological awareness while reinforcing their religious identity. These schools demonstrate how integrating waste management, reforestation, and water conservation into daily religious practices creates a lived pedagogy of eco-theology (Husna & Adrian, 2025; Junaidah et al., 2025). Yet the majority of pesantren still lack resources, policies, and institutional frameworks to systematically embed these practices (Marlina et al., 2023). This uneven implementation reveals a critical gap between conceptual endorsement and practical execution of eco-theological education. The novelty lies in proposing Green Islamic Education as a replicable model that can be adapted across different Islamic institutions regardless of their resource levels. Such a framework emphasizes inclusivity and adaptability, ensuring that eco-theology is not restricted to well-funded institutions but becomes a standard across the Islamic education landscape.

The discourse on Islamic environmental ethics has also expanded to include debates about overconsumption, consumerism, and lifestyle changes. Principles such as *israf* (avoidance of excess), *zuhd* (simplicity), and *ihsan* (doing good) provide a powerful counter-narrative to the unsustainable practices that dominate global society (Fiqri et al., 2025).

These values are often taught in isolation from ecological issues, limiting their transformative impact on students' lifestyles. Linking these principles directly to ecological challenges, such as climate change or biodiversity loss, creates opportunities for education to reshape social behaviors. This connection exemplifies the novelty of eco-theological integration, reframing environmental conservation as not only a civic duty but also an act of worship. By embedding these principles into curricula, Islamic education can contribute to cultivating a generation that associates sustainability with spiritual fulfillment.

Studies on green madrasas highlight the importance of institutional culture in fostering sustainability. Madrasas that align their vision, mission, and daily practices with environmental ethics show significant progress in shaping students' ecological character (Junaidah et al., 2025). Yet the diffusion of such institutional cultures is hindered by policy limitations, lack of collaboration, and insufficient research on best practices. The gap lies in scaling isolated successes into a national or even global framework of Green Islamic Education. Addressing this gap requires systematic collaboration between policymakers, educators, and religious leaders to ensure institutional reforms that embed eco-theological values consistently. The novelty of this research lies in presenting Green Islamic Education not as fragmented projects but as a holistic paradigm for institutional transformation that unites curriculum, infrastructure, and cultural practices.

Global comparisons also reveal that Muslim-majority countries vary significantly in their approaches to ecological education. While Indonesia has pioneered eco-pesantren initiatives, other contexts such as Saudi Arabia have integrated SDGs into higher education curricula (Hajar, 2024). This diversity indicates that Green Islamic Education must be adaptable to socio-cultural contexts while maintaining universal eco-theological principles. Yet the absence of cross-cultural comparative studies limits our understanding of how Islamic ecological education can be adapted globally.

The novelty lies in proposing a comparative lens that evaluates Green Islamic Education as a flexible framework capable of informing sustainability practices across diverse Muslim societies. Such a perspective elevates Islamic education from a national initiative to a global contributor to sustainability discourse. The theoretical foundations of eco-theology within Islam highlight that environmental stewardship is inseparable from spiritual responsibility. Qur'anic injunctions against *fasad*, exhortations toward balance, and emphasis on humanity's role as *khalifah* collectively establish a theological imperative for ecological responsibility.

Yet the research gap lies in translating these principles from theological discourse into pedagogical practice. Islamic education has the potential to operationalize these values through curriculum reforms, teacher training, and experiential learning, but most studies remain confined to conceptual discussions. The novelty of Green Islamic Education lies in bridging this gap by offering concrete curricular models and learning innovations that embody eco-theological values in daily educational practice. This approach transforms theology into lived pedagogy, ensuring that sustainability becomes an integral part of Islamic education.

Green Islamic Education represents both a continuity of Islamic traditions and a novel response to global environmental challenges. It aligns the timeless principles of stewardship, justice, and balance with contemporary sustainability frameworks, offering a faith-based yet globally relevant educational paradigm. The state of the art demonstrates that Islamic institutions are beginning to engage with ecological issues, but the gaps in systemic integration, pedagogical innovation, and comparative research remain significant.

The novelty of this study lies in positioning Green Islamic Education as a transformative model that not only fills these gaps but also redefines Islamic pedagogy in the age of ecological crisis. This model situates Islamic education as both a spiritual and practical force, preparing students to become ethical leaders and responsible stewards of the Earth. By embedding eco-theological values into curricula, institutions can contribute to global sustainability efforts while remaining faithful to their religious identity.

Method

This study employed a descriptive qualitative method to provide a comprehensive understanding of how eco-theological values are integrated into Islamic education. The approach was chosen because it allows researchers to explore natural settings in depth, emphasizing meanings, processes, and experiences rather than numerical generalizations (Sugiyono, 2022). Data were gathered through document analysis of curricula, policy guidelines, and institutional reports; semi-structured interviews with teachers, administrators, and community leaders; and direct observations of educational practices such as waste management, reforestation projects, and green campus initiatives. These multiple techniques enabled triangulation, enhancing the credibility and reliability of findings.

Result

The results reveal that Islamic education in Indonesia is vast in scale, with more than ninety-seven thousand institutions recorded in 2023. The dominance of Raudhatul Athfal (RA) and Madrasah Ibtidaiyah (MI) demonstrates the strong emphasis on early childhood and primary education as the foundation of Islamic learning. These levels not only introduce students to basic religious teachings but also provide opportunities for embedding ecological literacy from an early stage. The concentration of institutions in Java, particularly East Java, West Java, and Central Java, illustrates both the demographic weight of these provinces and their historical role in shaping Islamic educational traditions. This distribution highlights the strategic position of madrasahs in transmitting values to the largest Muslim community in the world. The pattern also shows that institutional density is correlated with higher potential for policy-driven integration of eco-theological education.

A closer look at the data indicates that senior secondary madrasahs (MA) make up the smallest proportion of Islamic institutions nationwide. This finding implies that fewer students continue their education at the upper secondary level compared to the elementary and junior high levels, raising concerns about continuity in embedding environmental and ethical literacy. The relatively small number of MA institutions signals a critical point for policymakers to strengthen vertical articulation of curriculum across levels. Without strong reinforcement at the upper secondary stage, eco-theological values introduced earlier may not be sustained effectively. Institutional scarcity at this level also reflects uneven educational access across regions, which may exacerbate social and ecological awareness gaps among youth. Efforts to address this imbalance are crucial for maximizing the transformative role of Islamic education in sustainability.

Table 4.1 Distribution of Islamic Educational Institutions by Level in Indonesia (2023)

Province	RA (Kindergarten)	MI (Elementary)	MTs (Junior High)	MA (Senior High)	Total Units
East Java	6,782	7,115	5,489	2,151	21,537
West Java	5,431	6,209	4,276	1,748	17,664
Central Java	4,982	5,604	3,899	1,502	15,987
Banten	2,601	2,850	1,678	754	7,883
North Sumatra	2,417	2,605	1,497	631	7,150
South Sulawesi	1,998	2,108	1,302	488	5,896
Aceh	1,703	1,914	1,127	402	5,146

West Nusa Tenggara	1,642	1,725	1,086	377	4,830
Others	3,561	3,942	2,654	1,106	11,263
Total	30,117	34,072	23,908	9,159	97,256

Source: Ministry of Religious Affairs, Indonesia (Kementerian Agama, EMIS 2023 Dataset)

The pie chart demonstrates that MI accounts for the largest share, followed by RA, MTs, and MA. This composition reflects the structural importance of primary education in the national system, where nearly one-third of all Islamic schools are at the elementary level. Embedding eco-theology at this level can yield long-term impacts because students are in a formative stage where values can be internalized deeply. The data also suggest that ecological education strategies should not only target pesantren or specialized green schools but must permeate mainstream madrasahs. Primary education is the most strategic entry point for instilling sustainability awareness grounded in Islamic values. This distribution aligns with the notion that ecological stewardship is most effective when cultivated consistently across a child's educational trajectory.

Regional variation provides additional insights into the challenges of mainstreaming eco-theological curricula. Provinces such as Aceh and West Nusa Tenggara, although smaller in population, show relatively high proportions of Islamic institutions compared to other regions outside Java. These provinces offer potential as laboratories for innovative ecological programs in education because of their manageable size and strong religious identity. Local wisdom in these areas can be synergized with Islamic ecological ethics to create models of sustainability-based education.

By contrast, provinces with larger institutional numbers face the challenge of scaling programs consistently across diverse and often resource-limited settings. Such disparities highlight the need for context-sensitive policies that account for both institutional density and regional culture in integrating Green Islamic Education. The overall findings suggest that the structure and distribution of Islamic education in Indonesia present both opportunities and challenges for the integration of eco-theological values.

The strong dominance of primary and junior levels provides an entry point for widespread implementation, while the smaller presence of senior institutions requires targeted reinforcement. Geographic disparities call for differentiated strategies that adapt to local contexts while maintaining alignment with national sustainability goals. These results confirm the urgency of transforming Islamic curricula into a vehicle for ecological stewardship, ensuring that environmental ethics are not marginal additions but central elements of faith-based education. The evidence underscores the transformative potential of Green Islamic Education in addressing the global environmental crisis while remaining faithful to Islamic principles.

Discussion

The findings of this study confirm that Islamic education holds a strategic role in embedding sustainability and ecological awareness, aligning with both national educational objectives and the global Sustainable Development Goals (SDGs). The large proportion of Raudhatul Athfal and Madrasah Ibtidaiyah institutions underscores the opportunity to instill ecological literacy from the earliest stages of formal education. Research indicates that Islamic teachings on stewardship (khalifah), justice (adl), and balance (mizan) provide a robust ethical framework for cultivating environmental responsibility (Husna & Adrian, 2025). When these principles are explicitly linked to sustainability goals, students can perceive ecological care not merely as a social duty but as an extension of their faith. The study strengthens the argument that education rooted in Islamic ethics

can address ecological challenges more effectively because it appeals to both spiritual motivation and practical responsibility. This intersection between faith and ecology makes Islamic education a powerful platform for sustainability transformation.

The evidence also highlights the uneven distribution of Islamic education institutions, with Java dominating the landscape in both scale and density. Such concentration allows for large-scale implementation of eco-theological curricula but also poses challenges of consistency across diverse institutions. Case studies of green madrasa initiatives demonstrate how curricular integration and facility management can successfully foster ecological character among students (Junaidah et al., 2025). Yet replication in other regions remains inconsistent, reflecting gaps in resources and institutional capacity. This unevenness indicates the necessity for differentiated policy strategies that acknowledge both institutional density in urban centers and cultural contexts in rural provinces. By tailoring eco-theological programs to local needs, Islamic education can maximize its transformative impact without being confined to a one-size-fits-all model.

The Green Pesantren movement illustrates the potential of Islamic organizations in mainstreaming environmental values. Nahdlatul Ulama has pioneered efforts to merge pesantren traditions with sustainability programs, reinforcing the idea that environmental stewardship is part of religious devotion (Maghfiroh et al., 2024). The involvement of kiai, santri, and alumni demonstrates how pesantren can mobilize communities to address ecological issues collectively. Such initiatives not only create awareness within educational spaces but also extend to community engagement and advocacy. Yet challenges persist in terms of standardization and long-term sustainability of these programs. Without systemic curricular reform, the efforts risk remaining localized and dependent on charismatic leadership rather than institutionalized practice. This underscores the importance of integrating eco-theological content into formal curricula rather than relying solely on extracurricular or voluntary activities.

The integration of Education for Sustainable Development (ESD) principles into Islamic education offers a broader perspective on pedagogical transformation. ESD emphasizes critical thinking, problem-solving, and participatory learning, which align closely with Islamic pedagogical traditions that value inquiry and ethical reflection (Yamin et al., 2022). Embedding ESD into madrasah curricula ensures that environmental ethics are not isolated topics but part of a holistic educational framework. Digital tools and project-based learning further enhance student engagement by linking ecological issues to everyday practices. Such approaches resonate with global calls for innovative pedagogy in sustainability education. The findings demonstrate that Islamic education has both theological justification and pedagogical pathways to operationalize sustainability in meaningful ways.

The results also reveal significant gaps in senior secondary Islamic education, where the number of institutions is smaller compared to primary and junior levels. This scarcity limits continuity in sustainability education and weakens reinforcement of eco-theological values as students mature. Studies show that continuity across levels is critical to ensure long-term behavioral transformation (Safina et al., 2024). Without sufficient reinforcement at the upper levels, early ecological awareness may not translate into sustained ecological practices in adulthood. This situation demands targeted interventions to strengthen the role of Madrasah Aliyah and Islamic universities as agents of ecological and ethical education. Expanding programs at these levels can bridge the gap between foundational values and applied practices in sustainability.

Institutional engagement plays a central role in transforming Islamic education into a sustainability driver. Universities, pesantren, and madrasah that have embraced green campus initiatives showcase how infrastructure, policy, and pedagogy can synergize to create

environmentally conscious learning environments (Salsabila Salsabila et al., 2024). These examples demonstrate that Islamic education can extend beyond moral rhetoric to concrete action, such as energy conservation, waste management, and reforestation. Yet institutional disparities in resources often limit the scalability of such initiatives. This highlights the importance of partnerships between government, civil society, and Islamic organizations to provide financial and technical support. Institutional collaboration ensures that eco-theological integration is not an isolated initiative but part of a systemic national strategy for sustainable education.

The alignment of Islamic ecological ethics with global sustainability frameworks also strengthens the universal relevance of Green Islamic Education. The principles of *tawazun*, *maslahah*, and *amanah* resonate with the core objectives of the SDGs, particularly in addressing climate change, environmental justice, and intergenerational responsibility (Husna & Adrian, 2025). Islamic education thus offers a unique contribution to the global sustainability discourse by providing a faith-based ethical foundation for environmental stewardship. This integration bridges the gap between secular sustainability frameworks and religious values, fostering a holistic approach that appeals to both rational and spiritual dimensions of human responsibility. The findings affirm that Islamic education has the potential to become a global model of culturally grounded sustainability education.

Local innovations such as the *Adiwiyata* program in madrasah also highlight the practical pathways for operationalizing eco-theology. Schools that integrate environmental care into their vision, mission, and daily routines demonstrate significant progress in shaping student character (Ibrahim et al., 2024). Practices such as waste segregation, water conservation, and energy efficiency become embedded in school culture, turning abstract values into lived experiences. These findings underscore the importance of institutional culture in sustaining ecological practices. Eco-theology becomes most impactful when it is translated into habitual action supported by infrastructure and leadership. The results confirm that sustainable transformation in Islamic education requires alignment between values, pedagogy, and institutional culture.

The discussion also reveals persistent challenges, including limited teacher capacity, inadequate curricular materials, and resistance from stakeholders who perceive environmental education as secondary to traditional religious studies. These barriers reduce the effectiveness of eco-theological integration despite its strong theological basis. Teacher training and curriculum development are therefore essential for scaling Green Islamic Education across diverse contexts (Hajar, 2024).

Investing in teacher professional development ensures that educators are equipped to connect Islamic teachings with ecological issues in innovative and meaningful ways. Overcoming resistance requires reframing ecological education not as an external addition but as an intrinsic part of Islamic values. This reframing positions environmental stewardship as an act of faith, thereby strengthening acceptance and implementation.

The findings collectively demonstrate that Green Islamic Education is not merely a theoretical construct but a transformative framework capable of addressing the global environmental crisis. Islamic education provides both moral legitimacy and practical pathways for ecological stewardship. Yet its success depends on systemic integration, institutional collaboration, and pedagogical innovation. The challenges of uneven distribution, limited continuity, and resource disparities must be addressed through strategic policies and targeted interventions.

The novelty of this study lies in framing eco-theology as a central pillar of Islamic education rather than a peripheral theme. By embedding ecological values into the heart of Islamic pedagogy, Green Islamic Education can cultivate generations that are not only spiritually grounded but also

environmentally responsible, making it a critical contribution to both Islamic scholarship and global sustainability.

Conclusion

This study concludes that Green Islamic Education, by integrating eco-theological values such as khalifah, amanah, tawazun, and maslahah into the Islamic education curriculum, offers a transformative approach to addressing the global environmental crisis. The findings demonstrate that Islamic educational institutions ranging from madrasah and pesantren to universities possess both theological foundations and practical opportunities to embed sustainability through curriculum reform, experiential learning, and community-based initiatives. Evidence from green madrasa and eco-pesantren programs illustrates that faith-based education can effectively nurture ecological awareness and responsible behavior when ecological ethics are framed as part of religious obligation rather than optional practice. Nonetheless, significant challenges remain, including limited resources, uneven institutional capacity, and the lack of standardized evaluation systems, which demand stronger teacher training, policy alignment, and innovative pedagogical models. Despite these barriers, the study affirms that embedding eco-theology into Islamic education not only strengthens character and spiritual formation but also contributes directly to achieving the Sustainable Development Goals by preparing a generation that is environmentally conscious, ethically grounded, and committed to preserving the earth as a sacred trust.

References

- Cahya Pratama, H., Yusuf, Z., & Agustin, F. P. (2025). Gamification Method Based on Information Communication Technology (ICT) in Islamic and Muhammadiyah Learning. *At Turops: Jurnal Pendidikan Islam*, 7(1), 59–74. <https://doi.org/10.51468/jpi.v7i1.767>
- Fiqri, D., Muhaemin, & R. Said, R. (2025). Transformational leadership in Islamic education: The role of madrasa principals in enhancing teacher religiosity. *At Turops: Jurnal Pendidikan Islam*, 7(1), 1–11. <https://doi.org/10.51468/jpi.v7i1.831>
- Hajar, A. (2024). Transforming Islamic Education for Environmental and Social Sustainability. *Sinergi International Journal of Islamic Studies*, 2(2), 82–95. <https://doi.org/10.61194/ijis.v2i2.601>
- Ibrahim, M. A., Abdullah, A., Ismail, I. A., & Asimiran, S. (2024). Leadership at the helm: Essential skills and knowledge for effective management in Islamic Economics and Finance schools. *Heliyon*, 10(17), e36696. <https://doi.org/10.1016/j.heliyon.2024.e36696>
- Juhaidi, A., Fitria, A., Hidayati, N., & Saputri, R. A. (2025). Examining factors influencing enrolment intention in Islamic higher education in Indonesia, does Islamic senior high school matter? *Social Sciences and Humanities Open*, 11(December 2024), 101243. <https://doi.org/10.1016/j.ssaho.2024.101243>
- Juliani, Humam Mahdi, Shofy Widya Sari, Suci Indah Sari, & Nadila Raihanun Nazwa. (2024). Green Islamic School: Integrating Environmental Education in the Islamic Education Curriculum. *Cendekiawan : Jurnal Pendidikan Dan Studi Keislaman*, 3(3), 565–574. <https://doi.org/10.61253/cendekiawan.v3i3.270>

- Junaidah, Mahardika, N. P., & Ma`arif, M. A. (2025). Promoting Green Madrasa as Environmental Education Program: How to Implement and Maintain It. *Munaddhomah*, 6(1), 39–54. <https://doi.org/10.31538/MUNADDHOMAH.V6I1.1572>
- Maghfiroh, M., Iryani, E., Haerudin, Yani, M. T., Zaini, N., & Mahfud, C. (2024). Promoting Green Pesantren: Change, Challenge and Contribution of Nahdlatul Ulama in Indonesia. *Nazhruna: Jurnal Pendidikan Islam*, 7(2), 409–435. <https://doi.org/10.31538/nzh.v7i2.4668>
- Marlina, R., Saefullah, S., Nuraeni, I. I., Mulyanto, A., & Sumantri, S. (2023). Paradigma Mendidik dan Mengajarkan English For Specific Purpose dalam Meningkatkan Kompetensi Mahasiswa Akuntansi Ditinjau dari Perspektif Psikologi Pendidikan. *EDUKASIA: Jurnal Pendidikan Dan Pembelajaran*, 4(2), 2421–2428. <https://doi.org/10.62775/edukasia.v4i2.606>
- Monica, S., Arsyad, S., & Waluyo, B. (2025). English medium instruction in Islamic higher education: Challenges of Lecturer readiness in Indonesia. *Social Sciences and Humanities Open*, 12(May), 101900. <https://doi.org/10.1016/j.ssaho.2025.101900>
- Safina, S., Hidayanti, N. F., Ariani, Z., Dewi, N. Y. S., Agustina, A., & Nur'aini. (2024). Peran Pendidikan Ekonomi Syariah dalam Meningkatkan Kesadaran Finansial dan Literasi Syariah. *Seminar Nasional Paedagoria*, 4(1), 236–248.
- Salsabila Salsabila, Arya Bisma Nugraha, & Gusmaneli Gusmaneli. (2024). Konsep Dasar Belajar dan Pembelajaran dalam Pendidikan. *PUSTAKA: Jurnal Bahasa Dan Pendidikan*, 4(2), 100–110. <https://doi.org/10.56910/pustaka.v4i2.1390>
- Sari, W. D. (2023). Education Sustainability Development (ESD) Teori pada Manajemen Pendidikan Islam di Era Digital. *Edukasi Islami Jurnal Pendidikan Islam*, 12(1), 153–170. www.unescobkk.org/ed
- Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif dan R&D* (2nd ed.). Alfabeta.
- Sulaiman, N. (2021). The Role of Islamic Education in Achieving Sustainable Development Goals. *Journal of Contemporary Islamic Studies*, 8(2), 102–118.
- Susila, E. E., Ru, S., Adiningsih, N. U., Marlina, R., & Saadah, E. (2024). *Handling Obstacles to Improving Continuing School Services at Regional High School XI Ministry of Education of West Java Province*. 5(20), 557–566. <https://doi.org/10.62775/edukasia.v5i2.1682>
- Yamin, M., Ahmad, N., & Suhartini, A. (2022). Konsep Pendidikan Berwawasan Lingkungan dalam Perspektif Islam. *Edukatif : Jurnal Ilmu Pendidikan*, 4(4), 5852–5862. <https://doi.org/10.31004/edukatif.v4i4.3513>