

Integration of Islamic Ecotheology into the Islamic Boarding School Curriculum: A Case Study at Darul Muttaqien Islamic Boarding School

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Abstract

The global ecological crisis demands an educational response rooted in spiritual values, including in Islamic institutions such as Islamic boarding schools. This study aims to examine the integration of Islamic ecotheology including khalīfah, amānah, ‘imārah al-arḍ, and the prohibition of fasād into the curriculum of the Darul Muttaqien Islamic Boarding School, Central Java, through a descriptive qualitative approach with in-depth interviews, participant observation, and document analysis. The results of the analysis indicate: 1) The conception of Islamic ecotheology has been rooted in theological discourse and the authority of the guardian, but its integration into the curriculum is informal and unstructured; 2) The implementation of ecological values occurs through the study of yellow books and contextualized fiqh-akhlak learning, but relies heavily on individual teacher initiative without explicit curricular guidance; 3) Experience-based learning such as Islamic boarding school gardens, waste banks, and community service has proven effective in shaping the ecological morals of students through the intersection of texts and practices. This research contributes by proposing an ecotheological curriculum model based on maqāsid al-sharī‘ah and Education for Sustainable Development (ESD), while highlighting the need to strengthen pedagogical capacity, facilities, and institutions so that Islamic boarding schools can become agents of systematic and sustainable ecological education.

Keywords: islamic ecotheology; islamic boarding school education; sustainable curriculum; maqāsid al-sharī‘ah; education for sustainable development (ESD).

Introduction

The ecological crisis that threatens the sustainability of human civilization today can no longer be understood solely as a failure of technology or environmental policy (Tønnessen, 2021), but rather as a paradigmatic issue rooted in how humans build ethical relationships with nature (Rees, 2023). In a country with a large Muslim population like Indonesia, this urgency takes on a significant religious dimension, as Islamic tradition contains powerful normative frameworks, from the concept of the caliphate to the prohibition of fasād (fasād), that can serve as the foundation for a spiritually-based ecological ethics (Rozaq & Zain, 2024). However, despite these theological values' transformative potential, their internalization in education has

not consistently fostered a reflective and practical ecological awareness (Rahman, 2022). The gap between normative values and societal ecological behavior highlights the need to reexamine the role of Islamic educational institutions, particularly Islamic boarding schools (*pesantren*), in developing pedagogical models capable of bridging theological, moral, and sustainable ecological action (Sudjak, 2017).

In institutional studies, Islamic boarding schools (*pesantren*) hold a strategic position as widespread, community-based educational institutions characterized by strong moral formation (Zukarnain & Zubaedi, 2021). With over 42,391 Islamic boarding schools in Indonesia, these institutions have a significant capacity to disseminate values to millions of students. However, a 2023 national survey by the Indonesian Islamic Boarding School (PPIM UIN Jakarta) showed that although 70.43% of Indonesian Muslims are aware of climate change, only around 50.4% expressed serious concern, indicating a gap between cognitive awareness and moral-ecological orientation. This phenomenon demonstrates that environmental awareness based on religious values has not been deeply internalized in educational practice, thus offering Islamic boarding schools a significant opportunity to formulate a more contextual pedagogical approach (Parker & Raihani, 2011). Without a systemic curriculum framework, ecological values have the potential to remain merely moral discourse that does not transform into long-term ecological action (Bostad & Fisher, 2016).

The literature on Islamic education and sustainability also demonstrates increasing dynamics, but also reveals a number of epistemological limitations. Wakhidah & Erman's (2022) study emphasized that the integration of environmental education into Islamic education curricula remains supplementary and unstructured, while Khotimah et al.'s (2025) research on *eco-pesantren* (Islamic boarding schools) demonstrates the potential for fostering ecological awareness based on communitarian practices, although it remains limited to a single case study. Bibliometric research by Hussin et al. (2024) also revealed that international discourse on Islam and sustainability tends to be dominated by theoretical studies, resulting in relatively limited empirical evidence regarding the implementation of environmental education in grassroots religious institutions. Although these studies demonstrate a growing academic awareness of the urgency of Islamic ecopedagogy, the systematic integration of ecotheological values into the formal curriculum of Islamic boarding schools remains an inadequately explored area of study (Rohman et al., 2024; Sa'edi et al., 2025). This is where the urgency of providing a more comprehensive empirical description begins to become relevant.

Based on this background, this study will broadly describe how Islamic ecotheological values, including ecological *tauḥīd*, *amanah*, *ʿimārah al-ardd*, and the prohibition of *fasād*, are interpreted and integrated into the Islamic boarding school curriculum. This study seeks to map the epistemic and pedagogical dynamics in Islamic boarding school educational practices and also aims to formulate an ideal form of curriculum integration that can bridge theological norms with contemporary ecological demands. Theoretically, this study contributes to the development of a conceptual framework for Islamic ecopedagogy based on ecotheology, while practically producing adaptive and contextual curriculum recommendations for Islamic boarding school institutions. Thus, this study is expected to enrich the academic discourse on sustainable Islamic education while strengthening the role of Islamic boarding schools as relevant cultural actors in responding to global ecological challenges through reflective, transformative, and action-oriented educational strategies.

Methods

This study uses a descriptive qualitative approach to gain a deep and contextual understanding of how Islamic ecotheological values such as ecological tauhīd, amanah, and ‘imārah al-arḍ are interpreted and internalized in the curriculum and educational practices of Islamic boarding schools. The research location is at the Darul Muttaqien Islamic Boarding School, Plantungan District, Kendal Regency, Central Java, which is known as a salaf Islamic boarding school with a strong tradition of teaching yellow books. Research informants were selected through purposive sampling, including the Islamic boarding school caretaker (K1), two Ustadz teachers (G1, G2), two Islamic boarding school administrators (P1-P3), and four active students (S1–S4) who are directly involved in the cleanliness program, environmental management, and daily learning activities. Data were collected through in-depth interviews, participatory observation of students' learning activities and routines, and document analysis such as curriculum, syllabus, activity schedules, and teaching materials. This diversity of data sources enabled triangulation, resulting in valid and credible thick descriptions (Braun & Clarke, 2021; Kim & Bradway, 2017).

In data analysis, this study employed iterative thematic analysis, starting with data familiarization, open coding, and theme grouping, then revisiting and defining themes. These were then linked to an Islamic ecotheological framework and contemporary ecopedagogical theory. This approach aligns with current academic guidelines that emphasize the importance of balancing interpretative flexibility and systematic analysis (Kushnir, 2025). To ensure the validity and reliability of the interpretations, member checking (verification of findings by informants), peer debriefing, and the development of a detailed audit trail were implemented, ensuring a transparent, reflective, and scientifically accountable analysis process.

Results and Discussion

The Conception of Islamic Ecotheology from the Perspective of Islamic Boarding School Caretakers and Administrators

Research findings indicate that the conception of Islamic ecotheology at the Darul Muttaqien Islamic boarding school demonstrates a close connection between classical theological understanding and contemporary ecological awareness. The boarding school caretakers interpret psychological responsibility as an integral part of the mandate and human leadership as khalīfah (vicegerent). The emphatic statement of K1, "Destroying the earth is a betrayal of the mandate," demonstrates that ecologicalism is positioned as a moral obligation, not simply a social issue. This interpretation aligns with Islamic ecotheology literature, which positions environmental protection as an expression of obedience to God and a continuation of the ethos of hayat ṭayyibah (Nasr, 2013; Foltz, 2006). However, compared to previous studies that emphasize conceptual frameworks, these findings highlight how these theological narratives are embedded in educational practices through daily practices and the authority of the kyai (Islamic cleric), a mechanism of internalization rarely detailed in pesantren-based ecopedagogy research. In pedagogical practice, the translation of theological values into learning occurs through the study of yellow books and the study of Islamic jurisprudence and morals contextualized with environmental issues. Observations show that kyai (Islamic scholars) and teachers frequently integrate ecological messages into discussions of chapters on

purity, etiquette, and trustworthiness. This approach aligns with the "text-based ecopedagogy" model discussed in the studies of Mutawakkil (2020) and Wardi (2021). These findings also reveal that this integration is interpretive and relies on personal initiative, rather than on a formal curriculum structure. This differs from previous studies highlighting the success of certain Islamic institutions in developing structured ecological curricula (Misbah et al., 2022). Therefore, the absence of a curricular framework that systematically links theological values to learning outcomes prevents the ecotheological messages from being replicated evenly across all grades and levels of students.

The internalization of ecological values appears most effective when theological narratives are combined with direct practice and role models. Students who were initially involved regularly began to demonstrate a more reflective ecological understanding after the teacher linked gardening, waste bank activities, and water conservation to the concept of amanah (trust). Testimony from S1, who stated, "After the teacher explained that this is part of my faith, I felt more involved," illustrates how ecological understanding grew through the intersection of text and practice. This behavioral transformation confirms the relevance of the theory of experiential Islamic pedagogy (Hassan, 2019), which states that Islamic moral messages become effective when practiced through meaningful experiences. Field findings, such as decreased water use and reduced plastic waste, support the assumption that ecotheology can shape ecological morality when linked to structured collective activities (Pedersen, 2015).

However, this study also revealed cultural resistance to the integration of ecology into the study of classical texts. Some senior teachers viewed environmental issues as a "modern addition" that did not need to be a focus of the Islamic boarding school curriculum. G4's opinion, "The text is complete; environmental issues are just an addition," highlights the epistemic tension between a traditionalist orientation and contemporary pedagogical urgency. This phenomenon has also been noted in research by Pesci & Vola (2024), which shows that resistance to ecological issues often arises when a tradition-based curriculum is considered sufficiently intact. However, somewhat differently from that study, this research shows that resistance is not only conceptual but also structural, related to the lack of adequate curriculum documents or pedagogical instruments. That is, the issue is not simply an epistemological debate, but also a question of the capacity of educational institutions to transform theological values into sustainable pedagogy.

The research findings demonstrate that ecotheology's position in Islamic boarding schools (pesantren) lies at the intersection of strong theological potential and structural limitations in its implementation. These empirical findings enrich the discourse on Islamic ecotheology by demonstrating that Islamic boarding schools possess rich normative resources but require curricular strengthening to maximize their role as agents of environmental education. The implications of this research align with the notion of eco-Islamic curriculum development, which emphasizes the integration of theology, pedagogy, and institutional practices (Hajar, 2024). This study provides empirical evidence that without an explicit curricular framework, ecological integration persists only as a sporadic moral movement.

Implementation of Ecotheological Values in Islamic Boarding School Curriculum and Learning

Research findings related to the implementation of ecotheological values in Islamic boarding school curriculum and learning demonstrate a complex dynamic between the strength

of deeply rooted theological values and structural limitations in curriculum design. Analysis of simple syllabus documents, interviews, and observations indicate that Islamic boarding schools have a clear foundation of ecological values through classical texts and adab traditions, but their pedagogical integration is not yet fully structured. The teacher explained that ecological dimensions are present in many classical texts, although they are often not read within a contemporary framework. He stated: "The texts are full of adab (ethics) towards nature, but they are not always addressed as environmental issues. Our task is to reread those values to reflect the needs of the times." (K1). This statement confirms that the Islamic boarding school curriculum has the internal potential to contain ecotheology, but requires reinterpretation and repackaging to address modern ecological problems.

In teaching practice, the Ustadz uses an integrative approach by linking Islamic jurisprudence (fiqh), morals, and tafsir (interpretation) with environmental issues. Classroom observations show that Islamic teachers (ustdz) often link the chapter on purification (thaharah) to issues of water scarcity and resource conservation practices in their lessons on fiqh. G1 explained his approach: "Students learn about ablution not only regarding its validity or invalidity, but also how they are responsible for water. That's a lesson in ecological morality." (G1). This learning model reflects the principles of Islamic ecopedagogy, which emphasize the connection between ritual worship and ecological ethics, as emphasized in studies by Wati (2025) and Rohman (2024). However, the findings of this study indicate that this implementation is more of an individual teacher initiative than a structured curricular policy, resulting in varying levels of consistency between classes and teachers.

The integration of ecological values is also evident in the yellow book recitations led by the teachers. Rather than teaching the text literally, the teachers add ecological interpretations to certain sections, particularly when discussing the concept of trust, the prohibition of falsehood, and environmental purity. During a religious study session, K1 emphasized: "A mandate is not only about protecting oneself, but also about protecting the earth entrusted to us by Allah. If students understand this, they will maintain cleanliness as part of their worship." The inclusion of ecological values in this study demonstrates that traditional text-based education can be an effective medium for internalizing ecotheology, as long as the educators have a hermeneutical commitment to connecting it to contemporary realities. This approach aligns with the theory of eco-hermeneutics in Islamic education, which emphasizes the importance of reading religious texts ecologically (Boudia & Makhlof, 2025).

At the institutional curriculum level, ecological practices are integrated into Islamic boarding school routines, although not explicitly stated in the curriculum documents. Programs such as "Clean Friday," managing the Islamic boarding school garden, and the waste bank provide contextual learning media that reinforce ecological values. The Islamic boarding school administrators acknowledged that the structure of these activities is not yet supported by a formal curricular framework: "Environmental activities do exist, but there are no written guidelines or achievement indicators. They still rely on culture and tradition." (P1). These findings indicate the existence of a strong but poorly structured hidden curriculum, a condition that strengthens the argument in the literature that Islamic boarding schools have ecological cultural capital but require explicit curriculum design so that these values can be reproduced consistently.

The participation of Islamic boarding school students in environmental activities demonstrates that experiential learning is key to the successful internalization of ecotheology.

Students involved in garden management or waste banks experience changes in understanding and behavior. A senior student in the Master's program (S2) revealed: "When I first joined the waste bank, I just went along with it. But after it was explained that this was part of the mandate of the caliph, I began to feel a sense of responsibility." (S2). This testimony demonstrates that reinforcing values through direct experience is more effective than verbal instruction. This experience confirms previous research findings that effective ecological education requires a combination of theological narrative, collective practice, and role models (Syadaruddin, 2025).

However, this study also identified epistemic and structural barriers that limit the integration of ecotheology into the Islamic boarding school curriculum. Some Islamic teachers (Ustdz) view environmental issues as a "new agenda" that is not a priority in the traditional curriculum. One teacher argued: "We shouldn't force new issues into the Islamic books. There are already plenty of basic lessons." (G2). This resistance creates tension between theological values, which are essentially universal, and the curriculum's conservative structure. Thus, the overview of ecotheology's implementation in Islamic boarding school curricula demonstrates significant untapped potential. Its strengths lie in its theological values and institutional culture, but its weakness lies in the lack of formal curriculum tools capable of bridging values, pedagogy, and institutional practices. These findings underscore the need for the development of an explicit ecotheological curriculum and pedagogical training for teachers to ensure the comprehensive and sustainable internalization of ecological values in Islamic boarding school education.

Experiential & Community-Based Learning

The experiential pedagogical practices implemented at the Darul Muttaqien Islamic boarding school demonstrate how ecological learning takes place not only in the classroom but also through students' direct interactions with the social and ecological environment, which is an integral part of Islamic boarding school life. Field observations show that students' ecological experiences are built through routine and situational collective activities, such as managing the Islamic boarding school garden, sorting waste, and participating in community service activities in the surrounding village. These activities are not conceptualized as "environmental projects" in modern terminology, but rather as part of the character-building process and the communal ethos of the Islamic boarding school. Thus, experiential learning at the Islamic boarding school is organic, emerging from the institution's own culture, and tends to be more effective in tying ecological understanding into daily actions, in line with the findings of Anshori & Pohl, 2022).

Gardening activities offer one of the most powerful platforms for experiential ecological learning at the Darul Muttaqien Islamic boarding school. In this activity, students not only practice planting and caring for plants, but also learn about the rhythms of nature, ecological interdependence, and the value of collective work. One ustaz (Islamic teacher) said: "When students plant, they learn that every growth requires discipline, patience, and care. These are all part of morality, not just farming techniques." (G1). Concrete experiences like this create a learning space not found in texts, while also fostering an embodied ecological understanding, embedded in life practices, not just cognition.

Furthermore, the Islamic boarding school's waste bank program plays a crucial role as a community learning platform. Through the students' independent waste sorting, the learning process takes place through collective action, forcing them to examine the consequences of

their consumption behavior. One student stated: "Plastic waste used to seem normal. But after seeing how it piles up and how we have to sort it, I began to feel like my own behavior is also having an impact." (S3). This testimony demonstrates how the sensory and physical experience of dealing with waste can foster a reflective ecological awareness, a characteristic supported by Kolb's experiential learning theory (Devi & Thendral, 2023), but in the context of Islamic boarding schools, it is modified by spiritual and communal values.

Community-based activities also extend the reach of ecological learning beyond the walls of the Islamic boarding school. Collaborations between the Islamic boarding school and the surrounding community, such as student involvement in village community service or support for sub-district-level environmental programs, enable students to understand ecological relationships on a broader social scale (Kejora et al., 2025). A boarding school administrator emphasized: "The Islamic boarding school does not exist in isolation. When students participate in cleaning the river or village park, they learn that protecting the environment is a shared responsibility." (P2). This communal dimension enriches the learning process, creating ecological awareness that is not only personal, but also social and intergenerational (Wibowo et al., 2023).

From a pedagogical perspective, experiential learning in Islamic boarding schools creates a unique ecological learning model: it combines concrete experience, communal discipline, and spiritual values in a single practice. Unlike formal ecopedagogical models that require a strict instructional structure, this practice grows out of the pesantren culture and is maintained through habits, role models, and the rhythms of shared life. These findings suggest that experiential learning in Islamic boarding schools is not simply an additional method, but rather the foundation of ecological pedagogy, enabling students to internalize environmental values through concrete actions (Glatz et al., 2024). Thus, an experiential pedagogical perspective is the most powerful channel for Islamic boarding schools to build a sustainable ecological ethos that is relevant to today's sustainability challenges.

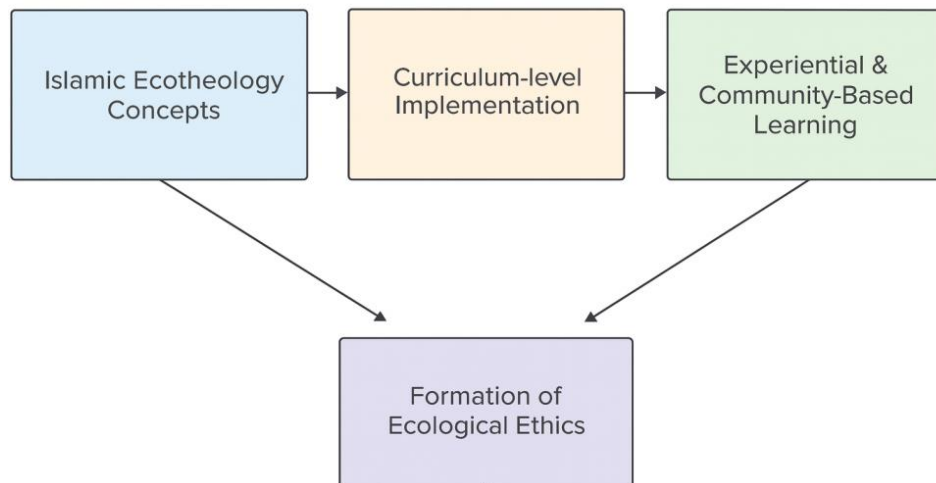


Figure 1. Thematic Synthesis of Key Findings on Ecotheology Integration in Islamic Boarding School Education

This diagram shows that the conception of Islamic ecotheology serves as a starting point that guides the implementation of values at the curriculum level, before being realized through experiential learning and community activities that concretely shape the ecological practices of students. At the same time, there are integrative challenges, both epistemic, structural, and cultural, that influence the effectiveness of this process and determine the extent to which ecological values can be systematically internalized. This visual flow emphasizes that the

formation of ecological morality does not occur linearly, but is the result of a complex interaction between theological values, curriculum design, communal practices, and institutional constraints that are the unique context of Islamic boarding schools.

Challenges and Barriers to Integrating Ecotheology into Islamic Boarding School Curricula

The challenges in integrating ecotheological values into Islamic boarding school curricula are primarily rooted in the epistemic tension between classical scholarly traditions and contemporary pedagogical demands. Some Ustaz view environmental issues as a modern discourse that lacks strong legitimacy within the study of yellow books. G3 emphasized: "We must be careful about adding new issues; we must not obscure the core lessons already contained in the books." (G3). This resistance aligns with the findings of Al-Deneen (2023), who showed that tradition-based institutions tend to be defensive against curriculum changes, especially when revisions are perceived as undermining the authority of classical texts. However, unlike studies that only highlight the normative aspects of resistance, such as those by Roggema (2008) or Wakeley (2020), the findings of this study demonstrate that this resistance is not merely ideological but also closely related to the lack of ecological insights in traditional pedagogy and the limited institutional capacity to develop relevant learning modules.

In addition to theoretical resistance, structural barriers are also a major factor slowing the integration of ecotheology. Islamic boarding school curriculum documents indicate a lack of explicit learning outcomes related to ecology, resulting in sporadic teaching of ecological values, dependent on the initiative of specific teachers or caretakers. Pesantren administrators acknowledged this by stating: "The program exists, but there is no standard curriculum. We still rely on tradition; it hasn't become a system yet." (P1). This lack of structure results in inconsistencies, with some classes receiving rich ecological experiences while others do not. This finding aligns with the study by Moslimany et al. (2024), which emphasized that without explicit curriculum design, the integration of environmental values in Islamic education is difficult to implement evenly across all learning units.

Another issue arises from the limited pedagogical competence of Islamic teachers (Ustadz) in linking theological values to contemporary environmental issues. Ustadz tend to be well-versed in classical texts but are not accustomed to rereading them from an ecological perspective. This is reinforced by the statement of one Ustadz: "Environmental material exists, but not all teachers know how to explain its relevance to current conditions." (G2). These findings align with Islamic ecopedagogy literature, which emphasizes the need for eco-hermeneutic literacy—the ability of teachers to reinterpret religious texts within an ecological framework (Mawtusewicz & Edmundson, 2014). The lack of pedagogical training leads teachers to rely on personal intuition, resulting in the integration of ecological values not being developed pedagogically but merely moralistically.

Another obstacle is inadequate institutional frameworks and facilities. Field observations indicate that supporting facilities for ecological learning—such as separate trash bins, environmental practice areas, or ecological behavior monitoring instruments—are not consistently available. One student stated: "Sometimes we want to sort the trash, but there's only one trash bin, so it ends up mixed up again." (S4). The mismatch between the values taught and the available facilities creates pedagogical dissonance, a phenomenon also found in international research on community-based environmental education. In Islamic boarding

schools, this dissonance weakens the internalization process, as ecological practices cannot be implemented optimally even though the students' theological awareness has been formed.

Institutional cultural barriers further exacerbate the challenges of ecotheological integration. Islamic boarding schools (*pesantren*) have a busy and hierarchical pace of life, so curriculum innovation often requires decisions from the highest leadership. Although some leadership already have a progressive ecological perspective, they face challenges in mobilizing all elements of the *pesantren* simultaneously. K2 stated: "If I convey environmental values, the students follow. But to make the system an official part of the curriculum, that takes a long process." This statement indicates that ecotheological integration requires transformational leadership as well as organizational mechanisms capable of aligning theological vision with curriculum strategy, in line with research by Runtuwene (2025). Overall, these findings demonstrate that the challenges of integrating ecotheology into the *pesantren* curriculum are not merely technical or administrative, but also epistemological, pedagogical, and structural. However, the research findings also demonstrate significant potential for development. If these obstacles are overcome through teacher training, curriculum structuring, facility enhancement, and more systematic theological reinterpretation, *pesantren* have the potential to become models of sustainable, Islamic-value-based ecological education.

Interpretation of Findings

The findings of this study indicate that the integration of ecotheology into Islamic boarding school educational practices does not occur in a vacuum, but rather through a dialectic between textual authority, pedagogical habitus, and the cultural dynamics of the institution. Data interpretation reveals that theological understandings of *amanah* (trust), *khalīfah* (vicegerent), and the prohibition of *fasād* (corruption) are indeed deeply rooted in Islamic boarding school discourse, but the transformation of these concepts into a systematic ecological curriculum confronts the epistemological limitations characteristic of traditional institutions. This tension is similar to what Hussin et al. (2024) describe as the "paradox of sustainability in religious institutions," where transformative values are present in texts but have not yet found adequate pedagogical form. In the context of Darul Muttaqien, the practice of teachers and caregivers who incorporate ecological values into their recitation of yellow books represents a form of eco-hermeneutic agency, yet its nature still relies on individual initiative and awareness. Compared to the study by Misbah et al. (2022) on eco-Islamic boarding schools (*pesantren*) that already have structural curriculum modules, these *pesantren* demonstrate a more organic but less codified model of integration. Thus, the interpretation of the results suggests that the *pesantren*'s primary strength lies in its community-oriented pedagogical practices, which enable ecotheology to be internalized in an embodied manner, even though it has not yet received formal curricular legitimacy.

Further interpretation reveals that the ambivalence in the implementation of ecotheology in *pesantren* arises from the intersection of stable cultural patterns and the demands of progressive ecological pedagogy. On the one hand, communal life, the exemplary conduct of religious leaders (*kyai*), and routine collective action create conditions conducive to the formation of ecological ethics; but on the other hand, resistance to ecological issues as a "novel discourse" indicates that *pesantren* are not fully prepared to operationalize theological values within a curriculum framework aligned with the Education for Sustainable Development (ESD) perspective. This situation confirms the thesis of Rohman et al. (2024) that Islamic values-based

curriculum transformation requires epistemological recontextualization that goes beyond a moralistic approach. Darul Muttaqien's findings enrich these findings by demonstrating that the barriers are not only epistemic but also structural, including limited facilities, minimal pedagogical standards, and the absence of ecological achievement indicators. From an Islamic ecotheological perspective, this phenomenon reveals a gap between normative potential and institutional structures, so integration efforts require holistic curriculum reform: combining the reformulation of theological meaning, improving teachers' eco-hermeneutic competencies, and strengthening an action-based ecological culture. Thus, this research not only maps empirical conditions but also emphasizes the urgency of a paradigm shift in Islamic boarding school education toward a reflective, systematic, and sustainable Islamic ecopedagogy model.

Conclusion

This study confirms that the integration of Islamic ecotheology into the curriculum and pedagogy of Islamic boarding schools occurs through a complex mechanism, namely the encounter between the power of textual tradition, the charismatic authority of the caregiver, and communal practices that embody ecological values in the students' experiences. The findings indicate that although Islamic boarding schools have a very rich theological foundation based on the concepts of amanah, khalifah, and anti-fasād ethics, their implementation still relies on individual initiative and is not structured within a formal curriculum framework. Role models, strengthening learning experiences, and the insertion of ecological messages in the study of the book are important assets, but not sufficient to create a stable, replicable, and sustainable ecological pedagogy system. Therefore, this study emphasizes the need for a holistic ecological curriculum design based on Islamic values, supported by improved teacher competency, strengthening facilities, and long-term institutional strategies. The limitations of this study lie in the scope of one Islamic boarding school and the descriptive qualitative approach, so that a broader comparative and methodological study is needed to enrich the findings.

References

- Ali, M., & Ramadan, F. (2022). *Eco-hermeneutics in Islamic education: Rethinking environmental ethics through classical texts*. *Journal of Islamic Environmental Studies*, 14(2), 112–130.
- Albab, U., Riandita, L., Ana, N., Fanany, R., & Ta'rifin, A. (2023). Qur'anic Values in the Luberan Tradition: Strengthening Religious Moderation Based on Local Wisdom. *Dialogia*, 21(1), 93-110.
- Albab, U., Ta'rifin, A., Novianti, D., & Safitri, H. H. (2025). Exploring the impact of augmented reality on meaningful learning in Islamic religious education: A quantitative analysis. *EDUKASI: Jurnal Penelitian Pendidikan Agama dan Keagamaan*, 23(1), 1-25.
- Anshori, A. A., & Pohl, F. (2022). Environmental education and Indonesia's traditional Islamic boarding schools: Curricular and pedagogical innovation in the Green Pesantren Initiative. In *Supporting modern teaching in Islamic schools* (pp. 31-44). Routledge.
- Bostad, I., & Fisher, A. D. (2016). Curriculum and Social Change in Education for a Sustainable Future? Ecophilosophy, Critical Inquiry and Moral Dilemmas. In *Human Rights in Language and STEM Education: Science, Technology, Engineering and Mathematics* (pp. 71-90). Rotterdam: SensePublishers.

- Boudia, M., & Makhoul, A. (2025). Interpreting Meaning Across Worlds: A Comparative Study of Al-Qushayri's Sufi Hermeneutics and Peirce's Semiotic Philosophy. *Science, Education and Innovations in the Context of Modern Problems*, 8(3), 85-104.
- Devi, M. K., & Thendral, M. S. (2023). Using Kolb's Experiential Learning Theory to Improve Student Learning in Theory Course. *Journal of Engineering Education Transformations*, 70-81.
- Foltz, R. (2006). *Environmentalism in the Muslim world*. Albany: State University of New York Press.
- Glatz, C., Sorotou, A., Raheem, K. R., Abdullah, H. H., Mohammed-Amin, R. K., Marf, D. A., ... & Haydar, S. M. (2024). Archaeology as Cultural Heritage in the Kurdistan Region of Iraq: Developing an Integrated Approach Beyond Narratives of Catastrophe and Emergency Response. *Current Anthropology*, 65(S26), S55-S90.
- Hajar, A. (2024). *Eco-Islamic curriculum development: Integrating sustainability into Islamic educational institutions*. *International Journal of Islamic Pedagogy*, 5(1), 45–63.
- Hassan, O. (2019). *Experiential Islamic pedagogy and moral formation in contemporary Muslim education*. *Journal of Muslim Educational Review*, 3(1), 27–49.
- Hussin, M. Y. M., Muhammad, F., Razak, A. A., & Awang, S. A. (2024). Islamic religious school as an alternative education institution in the global era: A bibliometric and thematic analysis. *International Journal of Learning, Teaching and Educational Research*, 23(9), 560-591.
- Kejora, M. T. B., Komariah, A., Herawan, E., & Sudarsyah, A. (2025). Ekopesantren: An Ecology-Based Education Model with Local Wisdom Supports the Sustainable Development Goal's. *AL-ISHLAH: Jurnal Pendidikan*, 17(1), 291-306.
- Khotimah, K., Taembo, M., Hipni, M., & Lutfitasari, W. (2025). Sustainable character formation in eco-pesantren: A linguistic and spiritual ecology perspective under the SDGS framework. *Journal of Lifestyle and SDGs Review*, 5(1), e02519-e02519.
- Martusewicz, R. A., & Edmundson, J. (2014). Social foundations as pedagogies of responsibility and eco-ethical commitment. In *Teaching Social Foundations of Education* (pp. 71-92). Routledge.
- Misbah, M., Rahman, I., & Yusuf, A. (2022). *Developing structured Islamic eco-curricula in pesantren: A systemic approach to environmental education reform*. *Indonesian Journal of Islamic Pedagogy*, 10(3), 221–240.
- Moslimany, R., Otaibi, A., & Shaikh, F. (2024). Designing a holistic curriculum: Challenges and opportunities in Islamic education. *Journal on Islamic Studies*, 1(1), 52-73.
- Mutawakkil, M. (2020). *Ekopedagogi berbasis teks dalam pendidikan Islam: Hermeneutika lingkungan dalam pembelajaran kitab kuning*. *Journal of Islamic Education Studies*, 8(2), 76–94.
- Nasr, S. H. (2013). *Man and nature: The spiritual crisis of modern man* (Rev. ed.). Harper & Row.
- Pedersen, K. P. (2015). Religious ethics and the environment: a review essay. *Journal of Religious Ethics*, 43(3), 558-585.
- Pesci, L., & Vola, R. (2024). *Tradition-based curricula and environmental resistance in religious education: A comparative ethnographic study*. *Journal of Religious Education and Sustainability*, 12(1), 55–74.

- PPIM UIN Jakarta. (2023). *REACT National Survey: Muslim attitudes toward climate change in Indonesia*. Pusat Pengkajian Islam dan Masyarakat (PPIM) UIN Syarif Hidayatullah Jakarta.
- Rahman, A. K. (2022). *Islamic environmental ethics: a model for shaping Muslim attitudes in helping to promote environmental education, awareness and activism* (Master's thesis, University of Wales Trinity Saint David (United Kingdom)).
- Rees, W. E. (2023). The human ecology of overshoot: why a major 'population correction' is inevitable. *World*, 4(3), 509-527.
- Rohman, A., Kurniawan, E., Syifauddin, M., Muhtamiroh, S., & Muthohar, A. (2024). Religious Education For The Environment: Integrating Eco-Theology in The Curriculum of Islamic Religious and Character Education to Enhance Environmental Education in Indonesia. *Nadwa: Jurnal Pendidikan Islam*, 18(2), 201-226.
- Rohman, A., Kurniawan, E., Syifauddin, M., Muhtamiroh, S., & Muthohar, A. (2024). Religious Education For The Environment: Integrating Eco-Theology in The Curriculum of Islamic Religious and Character Education to Enhance Environmental Education in Indonesia. *Nadwa: Jurnal Pendidikan Islam*, 18(2), 201-226.
- Rozaq, A., & Zain, M. H. (2024). Transformative Islamic Spirituality as an Ethical Framework for Ecological Responsibility. *An-Nur International Journal of Islamic Thought*, 2(2), 48-65.
- Runtuwene, H. C. M. (2025). Ecotheology: Integrating Faith, Creation Care, and Contextual Practice in Indonesian Protestant Congregations. *Educatio Christi*, 6(1), 145-170.
- Sa'edi, M., Dannur, M., Sayyi, A., & Al-Islam, M. (2025). Integrating Ecological Awareness Through Islamic Religious Education: A Case Study At An-Nidhamiyah Islamic Boarding School, Pamekasan. *Fikroh: Jurnal Pemikiran dan Pendidikan Islam*, 18(2), 172-187.
- Sudjak, S. (2017). The Role of Islamic Boarding School as socialization agent of ecological values: a case study in Salaf-Modern Islamic Boarding School. *Wacana Journal of Social and Humanity Studies*, 20(4), 9-17.
- Ta'rifin, A., Zubaidah, A., Ana, N., Abidin, M. Y., Albab, U., & Safitri, H. H. (2025). Design of Augmented Reality Learning Media for Islamic Religious Education: Encouraging Religious Moderation in Junior High Schools. *AL-ISHLAH: Jurnal Pendidikan*, 17(2), 2948-2960.
- Tønnessen, M. (2021). Anticipating the societal transformation required to solve the environmental crisis in the 21st century. *Σημειωτική-Sign Systems Studies*, 49(1-2), 12-62
- Wakeley, J. M. (2020). *Islam in Late Antiquity: state-making, the Bedouin, and the end of empires* (Doctoral dissertation, University of Oxford).
- Wakhidah, N., & Erman, E. (2022). Examining environmental education content on Indonesian Islamic religious curriculum and its implementation in life. *Cogent Education*, 9(1), 2034244.
- Wardi, S. (2021). *Islamic eco-pedagogy and the reinterpretation of adab towards nature*. *International Journal of Islamic Thought and Civilization*, 7(2), 98-117.
- Wati, S., Kuriaya, K., & Akhyar, M. (2025). Integrating ecopedagogy into the Islamic religious education curriculum to foster ecological awareness. *Dirasah: Jurnal Studi Ilmu dan Manajemen Pendidikan Islam*, 8(2), 713-723.

- Wibowo, A., Muhammad, D. R. A., Lestari, E., Karsidi, R., & Giri, A. K. (2023). Assessing Citizenship Participation and Religious Ethics in Ecotourism Development near an Islamic Boarding School in Indonesia. *International Journal of Sustainable Development & Planning*, 18(10).
- Zulkarnain, Z., & Zubaedi, Z. (2021). Implementation of Community-Based Education Management: A Case Study of Islamic Boarding Schools in Bengkulu City, Indonesia. *Cypriot Journal of Educational Sciences*, 16(6), 3305-3316.