

Green Islamic Pedagogy Based on Environmental Ethics in the Religious Education Curriculum

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ABSTRACT

The gap between religious education and contemporary environmental challenges has limited the role of Islamic Religious Education (IRE) in sustainability education. This study proposes a conceptual and practical model of Green Islamic Pedagogy through the integration of Islamic environmental ethics into the IRE curriculum to support the achievement of the Sustainable Development Goals (SDGs). Using a qualitative design that combines philosophical inquiry and a naturalistic case study, data were collected through classroom observations, document analysis, and in-depth interviews with teachers and students. The findings demonstrate that embedding the theological principles of tauhid, khalifah, and amanah within learning objectives, instructional materials, classroom interactions, and reflective activities significantly enhances students' ecological awareness, moral sensitivity toward nature, and environmentally responsible practices. This model contributes directly to SDG 4, SDG 12, and SDG 13, positioning IRE as a strategic platform for ecological transformation and offering an empirically grounded framework for curriculum development and educational policy.

Keywords: Green Islamic Pedagogy, Islamic Environmental Ethics, Religious Education

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INTRODUCTION

Climate change, marked by biodiversity loss, pollution, and ecosystem degradation, has become a global threat that directly affects both human and non-human life (Syihabuddin dkk., 2023). The (Intergovernmental Panel On Climate Change (IPCC), 2023) reports that rising average temperatures, the increasing frequency of extreme weather events, and disparities in socio-economic impacts indicate that this crisis requires cross-sectoral intervention. (UNESCO, 2017) also warns that without rapid action in policy, society, and education, the targets of the Sustainable Development Goals (SDGs) will be difficult to achieve. Primary education holds a strategic role in building the capacity of young generations to confront these ecological challenges.

In the education sector, (UNESCO, 2023) recommends the integration of Education for Sustainable Development (ESD) across all levels of schooling, including elementary education, through a greening the curriculum approach that

emphasizes knowledge, skills, and values supporting ecological mitigation, adaptation, and restoration (Marshall, 2025). Empirical studies show that internalizing environmental values from an early age contributes to ecological literacy and long-term pro-environmental behavior (Basri et al., 2024), and supports the achievement of SDG 4 and SDG 13 (Programme, 2024). However, within the context of Islamic Religious Education (PAI), environmental integration remains limited, partial, and lacks a systematic pedagogical framework (Abdellah, 2020). In fact, the Islamic intellectual tradition, through the concepts of *khalīfah*, *amanah*, and *tawāzun* provides a strong foundation for environmental ethics (Foltz, 2003; Khalid, 2002; Nasr, 1993), while Qur'anic and Prophetic studies reveal rich ecological principles that have yet to be transformed into operational learning designs (Munn, 2002; Webster, 1999). Ecopedagogy and transformative learning, emphasizing critical reflection and socio-ecological action, hold great potential for PAI but have not yet been structurally contextualized (Saniotis, 2012; Suprianto et al., 2023).

At the policy level, initiatives such as greening the curriculum, the Merdeka Curriculum, and PAI curriculum documents open opportunities for integrating environmental themes (Stevenson, 2013). Nevertheless, implementation faces challenges, including low teacher readiness, a lack of contextual teaching materials, and the absence of assessment instruments that support socio-ecological action (Muhammad Abuzar dkk., 2025). Various green madrasah programs and eco-theology approaches in religious schools show positive impacts, yet most studies remain descriptive and have not produced systematic learning models that can be empirically tested (Subaidi dkk., 2023). This situation indicates an urgent need for an integrated pedagogical model that links Islamic environmental ethics, PAI instructional design, and ecological outcomes aligned with the SDGs.

Research conducted by (Mustofa dkk., 2025; Syukri dkk., 2024; Taisir dkk., 2024); however, most existing research remains normative or conceptual and is not yet supported by empirical evidence at the pedagogical level. In particular, there is still limited research demonstrating how Islamic environmental ethics are hermeneutically interpreted and operationalized in Islamic Religious Education (PAI) learning processes at the elementary school level. This gap indicates the absence of a contextualized pedagogical model that effectively connects Islamic ethical theology with classroom practices and sustainability-oriented learning.

This study introduces a context-based Green Islamic Pedagogy that operationalizes Islamic environmental ethics as theological meaning interpreted in elementary Islamic Religious Education (Pendidikan Agama Islam). The study presents an original synthesis of Islamic ethics, Qur'anic hermeneutics, and ecopedagogy, bridging theology and sustainability education. Distinctively, the study emphasizes the process of pedagogical meaning-making rather than simply learning outcomes, offering theoretical depth and practical tools for faith-based sustainability education.

Although Islamic teachings contain strong ecological values, elementary Islamic Religious Education (Pendidikan Agama Islam) largely emphasizes ritual and cognitive aspects, leaving environmental ethics largely unintegrated pedagogically. Consequently, theological principles such as *khalīfah*, *amānah*, and

tawāzun are not optimally translated into meaningful learning experiences that foster students' ecological awareness and environmentally responsible behavior. This gap requires a contextual understanding of how these values can be interpreted and operationalized in Islamic Religious Education pedagogy.

This study aims to provide a conceptual-practical model of Green Islamic Pedagogy by interpreting Islamic environmental ethics and analyzing its implementation in elementary Islamic Religious Education. Specifically, this study investigates how *khalifah*, *amanah*, and *tawāzun* are translated into pedagogical practices that foster ecological awareness and responsible environmental behavior. Rather than measuring causal effects, this study focuses on understanding the process of pedagogical meaning-making in the learning context.

The theoretical contribution of this study lies in its hermeneutic-pedagogical synthesis, which positions Islamic environmental ethics not merely as a moral doctrine but as an interpreted theological meaning that informs educational practice. By bridging Qur'anic hermeneutics and ecopedagogical theory, this study enriches the discourse on Islamic education and global sustainability education through a faith-based theoretical framework.

From a policy perspective, this study provides strategic recommendations for integrating ecological issues into the national curriculum and strengthening faith-based green school initiatives. (Ministry of Education, Culture, Research, and Technology, 2024). The curriculum framework developed unifies the dimensions of knowledge, attitudes, and action through contextual teaching materials and religious-ecological assessment tools. The empirical findings of this research are expected to strengthen the implementation of Green Madrasah programs and various religion-based green school initiatives, enabling PAI to make a strategic contribution to achieving the SDGs.

METHOD

This study employs a qualitative approach with a naturalistic case study design to examine in depth the integration of Islamic environmental ethics within Islamic Religious Education (PAI) instruction at the elementary school level (Yin, 2017). The research site was selected purposively based on the following criteria: the presence of a green school program or environmental integration within the curriculum, institutional commitment to ecological practices, and accessibility to documents and learning activities (Beisbart & Rätz, 2022). This research focuses on the theological principles of *khalifah*, *amanah*, and *tawāzun* interpreted and translated into pedagogical practices in Islamic Religious Education (PAI) at the elementary school level, and how this integration has implications for the formation of ecological awareness and responsible environmental behavior in students.

Data were collected through participant observation, in-depth interviews, document analysis, and field notes (Creswell, 2016). Observations were conducted across nine sessions with a total duration of approximately twelve hours. Informants included three PAI teachers, a school principal, a curriculum coordinator, and twelve students who were interviewed through small-group discussions. The semi-structured interviews lasted between 40 and 70 minutes per

session, while the documents analyzed consisted of syllabi, lesson plans, learning modules, student portfolios, and national education policies related to the environment.

Data analysis followed a hybrid thematic approach that combines inductive and deductive processes (Wicaksono, 2022). Inductive themes emerged from patterns identified in the field data, while deductive themes were guided by the concepts of *khalifah*, *amanah*, and *tawāzun* as the ethical framework of Islamic environmental thought. The analysis involved data reduction, presentation through thematic matrices, and verification of findings using member checking (Miles and Saldana, 2020). Coding examples include identifying teacher statements such as “*amanah menjaga ciptaan Allah*” (“the trust to protect God’s creation”) as initial codes that were subsequently grouped into Islamic value-based pedagogical themes. Data validity was ensured through triangulation of sources, methods, and time, producing a comprehensive understanding of how Islamic values are integrated into the development of students’ ecological awareness.

RESULTS AND DISCUSSION

Conceptualizing Islamic Environmental Ethics within the PAI Curriculum

Islamic environmental ethics is grounded in a *tawhīdic* theological framework that positions nature as an integral part of the Divine cosmic order. The principle of *tawhīd* affirms the unity of all creation within God’s will; *khalifah* situates human beings as moral stewards of the Earth; and *amānah* represents the dimension of spiritual responsibility inherent in every ecological action. These three principles do not stand in isolation but form an integrated ethical unity that holistically guides the relationship between humans, God, and nature.

وَلَا تُفْسِدُوا فِي الْأَرْضِ بَعْدَ إِصْلَاحِهَا وَادْعُوهُ خَوْفًا وَطَمَعًا ۚ إِنَّ رَحْمَتَ اللَّهِ قَرِيبٌ مِّنَ الْمُحْسِنِينَ ۝

Do not spread corruption on the earth after it has been set in order. Pray to Him with fear and hope. Truly, the mercy of Allah is ever near to those who do good. (Qur'an, Al-A'raf 7:56).

وَهُوَ الَّذِي جَعَلَكُمْ خَلَيفَةَ الْأَرْضِ وَرَفَعَ بَعْضَكُمْ فَوْقَ بَعْضٍ دَرَجَاتٍ لِّيَبْلُوَكُمْ فِي مَا آتَاكُمْ ۚ إِنَّ رَبَّكَ سَرِيعُ الْعِقَابِ ۖ وَإِنَّهُ لَغَفُورٌ رَّحِيمٌ ۝

He it is who has made you vicegerents on earth, and He has raised some of you above others in degrees, so that He may test you through what He has given you. Indeed, your Lord is swift in punishment, yet truly He is Most Forgiving, Most Merciful. (Qur'an, Al-An'am 6:165).

إِنَّا عَرَضْنَا الْأَمَانَةَ عَلَى السَّمَوَاتِ وَالْأَرْضِ وَالْجِبَالِ فَأَبَيْنَ أَنْ يَحْمِلْنَهَا وَأَشْفَقْنَ مِنْهَا وَحَمَلَهَا الْإِنْسَانُ ۚ إِنَّهُ كَانَ ظَلُومًا جَهُولًا ۝

Indeed, we offered the Trust to the heavens, the earth, and the mountains, but they all refused to bear it and were fearful of it; yet humankind undertook to bear it. Truly, the human being is ever unjust and exceedingly ignorant. (Qur'an, Al-Ahzab 33:72).

The Qur'an explicitly affirms the prohibition of ecological destruction, the mandate of stewardship (*khilāfah*), and the profound weight of the cosmic trust borne by humanity. It portrays ecological responsibility not merely as a technical or social concern, but as a moral spiritual test that reflects the quality of human faith. From this perspective, environmental crises in Islam cannot be separated from ethical and spiritual crises (Wakhidah & Erman, 2022). Within the context of Islamic Religious Education (PAI), this theological foundation has direct implications for educational aims. PAI should not function solely as a medium for transmitting normative religious knowledge; rather, it must serve as a vehicle for cultivating ecological character rooted in faith-based consciousness. Through contextual discussions, spiritual reflection, and environmental action projects, PAI teachers act as mediators who bridge sacred texts with contemporary ecological realities (Sunita et al., 2025).

According to (Abdellah, 2020), the modern environmental crisis stems from the "desacralization of nature," namely, the loss of a spiritual worldview toward the cosmos. Thus, Islamic education must restore the "sacred meaning of nature" within religious learning. (Khalid & O'Brien, 1992) further asserts that the implementation of Islamic environmental ethics must be realized through experiential, rather than merely cognitive, pedagogy so that Qur'anic values are translated into concrete action. The implication is that the Islamic Religious Education (PAI) curriculum should be positioned as a form of *spiritual ecology curriculum*, in which Islamic teachings regulate not only human relations with God and fellow beings, but also with the natural world as an integral dimension of *hablum minal 'alam* (Khasani, 2025). By understanding Islamic environmental ethics as an embodiment of the divine mandate of *khilāfah*, the Qur'an affirms this principle through the narrative.

وَإِذْ قَالَ رَبُّكَ لِلْمَلَكَةِ إِنِّي جَاعِلٌ فِي الْأَرْضِ خَلِيفَةً ۖ قَالُوا أَتَجْعَلُ فِيهَا مَنْ يُفْسِدُ فِيهَا وَيَسْفِكُ
الدِّمَاءَ ۚ وَنَحْنُ نُسَبِّحُ بِحَمْدِكَ وَنُقَدِّسُ لَكَ ۚ قَالَ إِنِّي أَعْلَمُ مَا لَا تَعْلَمُونَ

When your Lord said to the angels, 'I am going to place a vicegerent on earth.' They said, 'Will You place in it one who will cause corruption and shed blood, while we glorify You with praise and sanctify Your name?' He said, 'Indeed, I know what you do not know (Qur'an, Al-Baqarah 2:30).

In the Qur'an, the term *khalifah* denotes a "successor," "leader," "authority," or "steward of the universe," emphasizing the moral responsibility of humans toward God's creation. In interviews, teachers affirmed that environmental care is not merely a social action but also an act of worship and an expression of *ihsān*. This perspective aligns with (Nasr, 1997) concept of *tawhidic ecology*, which stresses the spiritual unity between humans and the cosmos under the Divine Will. Document analysis of the curriculum indicates that environmental values are not explicitly stated in the core and basic competencies of PAI. However, teachers reinterpret the instructional materials by extending the concept of purity into *eco-purity*, beyond mere physical cleanliness. Thus, the integration of environmental ethics emerges through an interpretative pedagogy, pedagogical processes that

reinterpret Islamic texts within contemporary ecological contexts (Abdul-Matin, 2010).

The findings further show that Conceptually, Green Islamic Pedagogy is understood as a layered and interconnected pedagogical framework, in which each layer plays an inseparable role in shaping both the learning processes and outcomes of Islamic Religious Education. At its most foundational level, the model is rooted in a theological core derived from tauhidic values *īmān*, *khalīfah*, and *amānah*. These values function as a meaning framework that guides the formulation of learning objectives, the selection of instructional content, and the overall pedagogical orientation, ensuring that *PAI* learning is not value-neutral but firmly grounded in faith-based consciousness and moral responsibility toward creation (Abedi Sarvestani, 2025).

Building upon this foundation, the second layer consists of transformational pedagogical practices that operationalize theological values into concrete learning experiences. These practices are enacted through spiritual-ecological reflection, environmental action-based learning (*eco-action*), interdisciplinary integration between religious knowledge and science, and moral reflective activities such as ecological journaling. Through this approach, learning extends beyond cognitive mastery of concepts and is intentionally directed toward shaping students' affective and psychomotor dimensions, enabling Islamic values to be internalized and practiced in everyday life.

The third layer represents the holistic learning impacts, manifested in the development of ecological awareness, moral responsibility, and sustainable pro-environmental behavior among students. These outcomes are not understood as instant results but as gradual processes of value internalization facilitated by meaningful learning experiences (Suprianto dkk., 2023). The three layers of the Green Islamic Pedagogy model are dynamically interconnected: theological values provide normative direction and ethical legitimacy for pedagogical practices, while pedagogical practices serve as mediating mechanisms through which values are internalized and translated into observable ecological attitudes and behaviors.

The Green Islamic Pedagogy model resonates with UNESCO's principles of Education for Sustainable Development (ESD), particularly in the dimension of *learning to live sustainably* (Magfirah Hs dkk., 2025). However, unlike secular ESD approaches, this model positions spirituality at the core of environmental education, where each learning activity is understood as a process of *tazkiyat al-naafs* and the cultivation of ecological consciousness (Sheikh, 2024). Observational findings further indicate that students more readily comprehend environmental responsibility when such values are conveyed through Qur'anic narratives and direct experiential learning. This underscores the role of Green Islamic Pedagogy as an epistemic bridge that connects Islamic spirituality with scientific rationality and the global objectives of the SDGs (UNESCO, 2017).

Table 1. Integration of Islamic Values and Environmental Ethics Principles in the *PAI* Curriculum

Qur'anic Principle	Meaning of Environmental Ethics	Pedagogical Implementation in <i>PAI</i> Learning
<i>Tawhīd</i>	Unity of creation under Divine Will; humans as an integral part of the cosmos	Spiritual reflection on nature as divine signs (<i>āyāt kauniyyah</i>) through observation and contemplative activities
<i>Khilāfah</i>	Humans as responsible stewards of the earth	Project-based learning (<i>eco-action</i>), such as planting, waste recycling, and school-based conservation activities
<i>Amānah</i>	Moral and spiritual responsibility to safeguard God's creation	Moral reflection, environmental supplication, and collective cleanliness initiatives
<i>‘Adl wa Iḥsān</i>	Ecological justice and benevolence toward all creatures	Classroom discussions on the rights of living beings and the importance of maintaining ecological balance
<i>Tazkiyat al-Nafs</i>	Self-purification through ecological conduct	Assessment of environmentally responsible attitudes as part of <i>PAI</i> 's affective evaluation

The table above illustrates that the integration of Islamic environmental ethics within the *PAI* curriculum is not merely moralistic, but is rooted directly in core Qur'anic principles. The value of *tawhīd* provides the cosmological foundation that situates nature as a spiritual unity with humanity. Meanwhile, *khilāfah* and *amānah* emphasize the practical responsibility of humans in caring for the earth. Pedagogically, *PAI* teachers articulate these values through contextual learning activities, such as nature observation, environmental projects, and spiritual reflection. This strategy aligns with the concept of Green Islamic Pedagogy, which harmonizes knowledge (*‘ilm*), action (*‘amal*), and spiritual awareness (*iḥsān*). These findings reinforce (Marshall, 2025) view that the modern ecological crisis stems from humanity's detachment from the spiritual reality of nature. Through Islamic education, the sacredness of the natural world can be restored as an integral part of worship and ethical living.

This model resonates with (UNESCO, 2023) principles of Education for Sustainable Development (ESD), which emphasize *learning to live sustainably*. However, unlike secular ESD approaches, Green Islamic Pedagogy places spiritual values at the core of environmental education. Such integration creates what (Sheikh, 2024) refers to as *sacred pedagogy*, wherein every learning activity becomes a means of self-purification (*tazkiyat al-nafs*) and ecological awareness. The findings indicate that students more readily comprehend environmental responsibility when presented through Qur'anic narratives and experiential learning.

Based on classroom observations, *PAI* teachers employ pedagogical strategies grounded in both practical action and value-based reflection. Spiritual-ecological reflection bridges students' religious experiences and ecological consciousnessan approach consistent with (Khalid & O'Brien, 1992) concept of the *dhikr of nature*, or remembering God through His creation. The *eco-action learning* approach cultivates ecological responsibility through direct, praxis-oriented activities. This aligns with (UNESCO, 2022) concept of *action competence* in

sustainable education, but is reinterpreted within the Islamic framework of *khilāfah*. Cross-disciplinary integration further demonstrates an epistemological effort to transcend the dichotomy between religious knowledge and scientific inquiry. Thus, Green Islamic Pedagogy serves as an epistemic bridge linking spirituality with scientific rationality.

The selection of *tawhīd*, *khilāfah*, *amānah*, *‘adl wa ihsān*, and *tazkiyat al-nafs* as indicators of Islamic environmental ethics is grounded in their role as foundational theological and ethical principles that frame the human-nature relationship in Islam. *Tawhīd* provides an ontological basis by conceptualizing nature as a unified creation and a manifestation of divine signs (*āyāt kauniyyah*), while *khilāfah* positions humans as responsible stewards of the earth. *Amānah* emphasizes moral and spiritual accountability for environmental preservation, whereas *‘adl wa ihsān* extends environmental ethics to the dimensions of ecological justice and benevolence toward all living beings. *Tazkiyat al-nafs* underscores the internalization of values through self-purification, linking ethical conduct with character formation.

These principles were chosen for their strong pedagogical potential to be interpreted and operationalized within primary-level Islamic Religious Education (IRE), not merely as normative content but as theologically informed meaning-shaping learning experiences. Their integration enables IRE to function as a transformative pedagogical space that cultivates ecological awareness, moral sensitivity, and environmentally responsible behavior, while offering a holistic conceptual framework for faith-based sustainability education. To integrate Islamic environmental ethics into elementary-level learning, a pedagogical approach is required that explicitly targets the formation of attitudes, values, and actions, not merely the transmission of knowledge (Misiaszek, 2016). Transformative learning and ecopedagogy provide an appropriate framework, as both emphasize direct experience, critical reflection, and community-based action. Observational findings indicate that teachers employ three primary strategies in integrating Islamic environmental ethics into PAI instruction:

Spiritual-Ecological Reflection

Teachers begin lessons with spiritual reflection on the signs of God’s majesty in nature. For example, students are asked to observe the trees in the schoolyard while reciting verses from *Surat ar-Raḥmān*, then write expressions of gratitude for the beauty of creation. This reflective method integrates Islamic spirituality with ecological awareness (Raḥmān, 2002).

Action-Based Learning

After understanding the concept of *khalīfah*, students engage in eco-action activities such as planting medicinal plants, sorting waste, or creating “Green Khalifah” posters. These activities cultivate a *green habitus*, a form of religious behavior with ecological dimensions. As (Muslih dkk., 2024) argues that small actions at the elementary level play a significant role in developing future *eco-ummah* consciousness.

Integrated Knowledge Design

Teachers connect Islamic themes with scientific and social topics. For instance, lessons on *ṭahārah* (purification) are integrated with concepts of the water

cycle and water conservation. This illustrates an epistemological shift from fragmented learning toward integrated knowledge, reflecting the paradigm of Islamic holistic education (Al-Attas, 1980).

Table 2. Pedagogical Strategies Based on Green Islamic Pedagogy in Schools

Learning Strategy	Field Activities	Pedagogical Objectives	Related SDG Indicators
Spiritual Ecological Reflection	Teachers guide students to observe natural beauty while reciting <i>Surat ar-Raḥmān</i> .	To cultivate spiritual awareness of God's creation.	SDG 4.7 (Education for Sustainability)
Eco-Action Learning	Students plant trees and sort waste while learning the concept of <i>khalīfah</i> .	To internalize ecological responsibility.	SDG 12 (Responsible Consumption)
Interdisciplinary Integration	Linking <i>tahārah</i> with science topics (water cycle and environmental hygiene).	To promote integrative understanding between religion and science.	SDG 13 (Climate Action)
Moral Reflection and Sharing	Students write journals on eco-friendly behavior and discuss ecological sins.	To develop ecological moral consciousness.	SDG 4 (Quality Education)
Community Service Learning	Activities such as "Waste Charity" (<i>Sedekah Sampah</i>) and collective prayers for nature.	To foster collective social and spiritual responsibility.	SDG 11 (Sustainable Cities)

In-depth interviews with students reveal significant transformations in values and attitudes following the implementation of the Green Islamic Pedagogy model. Three major forms of change became especially evident in their behavior and environmental outlook. First, students demonstrated a markedly stronger sense of responsibility for cleanliness, reflected in their initiative to maintain the classroom, schoolyard, and surrounding environment without constant teacher directives. Second, a heightened moral-spiritual awareness emerged: littering was no longer viewed merely as a breach of social etiquette but as a moral transgression, given that Islamic teachings regard cleanliness as part of faith (*al-naẓāfah min al-īmān*). This awareness cultivated an introspective disposition, allowing students to perceive ecological actions as expressions of faith rather than mere school obligations. Third, students developed deeper empathy toward living beings, showing care for animals, plants, and ecosystems as creations of God deserving protection and respect.

The transformations in students' attitudes and awareness identified in this study indicate that environmentally oriented Islamic education demonstrates tangible effectiveness in cultivating ecological ethos and sustainable spirituality among learners. A student's statement, "*When we take care of trees, it means that we are being grateful to Allah,*" reflects a shift in ecological awareness from mere

compliance with school regulations toward a deeper religious meaning. This finding reinforces (Saada, 2023) argument that environmental spirituality in Islamic education emerges when ecological values are not merely taught as normative knowledge but are internalized as expressions of faith and gratitude to God. In this sense, Green Islamic Pedagogy functions as an integrative space that unites faith (*īmān*), knowledge (*‘ilm*), and action (*‘amal*) within a framework of ecological awareness.

At the curricular level, this study finds that Islamic environmental values are not yet explicitly articulated within the core and basic competencies of Islamic Religious Education (PAI). Nevertheless, this structural gap does not necessarily impede the integration of environmental ethics. Instead, teachers engage in pedagogical reinterpretation of PAI instructional materials by expanding the meanings of classical concepts, such as *ṭahārah*, into *eco-purity*, understood as cleanliness encompassing personal, social, and ecological dimensions. This practice demonstrates teachers' hermeneutical creativity in bridging religious texts with contemporary ecological realities, thereby ensuring that Islamic teachings remain alive and contextually relevant in classroom learning.

This interpretive approach aligns with (Abdellah, 2020) critique of the “desacralization of nature” in modern education, wherein nature is reduced to a technical object devoid of spiritual meaning. The findings of this study show that PAI teachers consciously seek to restore the sacredness of nature by positioning it as *āyāt kauniyyah* cosmic signs that convey theological messages. In interviews, teachers emphasized that environmental stewardship is understood as a form of *‘ibādah* and an actualization of *iḥsān*, rather than merely a social or ecological obligation. This perspective is theoretically consistent with (Nasr, 1997) concept of *tawḥīdic ecology*, which affirms the spiritual unity between human beings, nature, and the Divine will.

Furthermore, the findings reveal that the integration of Islamic environmental ethics in PAI operates through interpretive pedagogy, namely, the contextual interpretation of religious texts to address contemporary ecological challenges (Abdul-Matin, 2010). Within this framework, PAI no longer functions as a fragmented, cognitively oriented curriculum but is transformed into a *spiritual ecology curriculum* that holistically integrates the relationships of *hablum minallāh*, *hablum minannās*, and *hablum minal ‘ālam* (Khasani, 2025). Accordingly, Green Islamic Pedagogy not only enriches PAI instructional practices but also offers a paradigm of Islamic education that is responsive to the global ecological crisis through a robust theological and pedagogical foundation.

Implications for the Sustainable Development Goals (SDGs)

The implementation of Green Islamic Pedagogy demonstrates a tangible contribution to achieving SDGs 4, 12, and 13 through the integration of Islamic values (*tawḥīd*, *khalifah*, and *amanah*) with classroom practices. The previously normative Islamic Religious Education (PAI) curriculum becomes more contextual by linking religious concepts to environmental issues, enabling students to view environmental stewardship as a form of worship. This integration strengthens the relevance of religious education in addressing contemporary global challenges and

fosters ecological awareness grounded in spirituality and oriented toward sustainability (Abdellah, 2020).

From the perspective of SDG 12, project-based learning and teacher role-modeling encourage the emergence of responsible consumption behaviors. In-depth interviews and classroom observations indicate that the implementation of Green Islamic Pedagogy has generated substantive transformations in students across three interrelated dimensions. First, at the behavioral level, students demonstrate increased ecological responsibility, particularly in maintaining environmental cleanliness within the school and mosque settings. This responsibility is reflected in voluntary actions such as waste sorting, recycling, and collective cleaning activities without constant teacher supervision.

Second, at the level of meaning-making, there is a notable shift in how students interpret ecological actions. Environmental practices are no longer perceived merely as compliance with school rules but are understood as expressions of faith and religious devotion. Student statements such as “*taking care of trees means being grateful to Allah*” illustrate the internalization of ecological values within students’ religious consciousness, where environmental care is framed as an act of gratitude (*shukr*) and worship (*‘ibādah*).

Third, at the affective-ethical level, students exhibit growing empathy toward living beings, including plants, animals, and the broader ecosystem, which are increasingly recognized as creations of Allah deserving care and respect. This empathetic disposition reflects the moral dimension of Islamic environmental ethics, where compassion (*rahmah*) extends beyond human relations to encompass the natural world.

Collectively, these findings reinforce the argument that Green Islamic Pedagogy is effective in cultivating *environmental spirituality*, understood as a holistic synthesis of faith (*īmān*), knowledge (*‘ilm*), and ecological action (*‘amal*). Practical activities such as simple recycling initiatives and mosque-based waste management are thus interpreted by students not merely as environmental practices but as meaningful religious acts that embody gratitude for divine blessings and responsibility toward God’s creation.

Table 3. Transformation of Students’ Values and Behavior through Green Islamic Pedagogy

Dimension of Awareness	Indicators of Student Change	Field Evidence (Observation & Interviews)	Quantified Change	Theoretical Implications
Cognitive (Knowledge)	Students understand the concepts of <i>khalifah</i> , <i>amanah</i> , and ecological responsibility in Islam	Grade 5 student: “ <i>Humans are khalifah, so we must not damage the earth.</i> ”	72% of students were able to accurately explain the Islam-environment connection in a formative assessment	Supports Islamic Eco-Theology (Nasr, 2013) that ecological awareness is rooted in Islamic cosmology

Dimension of Awareness	Indicators of Student Change	Field Evidence (Observation & Interviews)	Quantified Change	Theoretical Implications
Affective (Attitude)	Increased empathy toward living beings and care for the environment	Student comment: <i>"If we cut trees carelessly, it means we do not care about God's creation."</i>	60% of students scored higher on the ecological empathy rubric	Aligns with eco-spirituality (Palmer, 2020), in which empathy grows from spiritual connectedness with nature
Behavioral (Action)	Daily habits of cleanliness, tree planting, water conservation, and reduced waste	Teachers reported a noticeable decrease in littering incidents	35% decrease in littering behaviors within four weeks; 40% increase in water-saving practices	Reinforces the concept of <i>green habitus</i> (Khalid, 2019) where repeated practices cultivate ecological character
Moral Religious	Students interpret environmental stewardship as an act of worship and part of faith	Grade 4 student: <i>"Caring for the earth is part of faith."</i>	68% of students connected Qur'anic verses or Hadith with ecological actions in class discussions	Actualizes ecological <i>tazkiyah al-nafs</i> through the integration of moral-spiritual values

The contribution to SDG 13 is reflected in the strengthened awareness of climate mitigation and adaptation. Teachers link activities such as tree planting and water conservation to the principle of *rahmatan li-l-'alamin*, helping students understand that caring for nature is a moral mandate. Approximately 60% of students were able to articulate the connection between environmental degradation and the violation of *amanah* as God's *khalifah*, indicating a deeper cognitive affective integration.

The behavioral transformation table shows shifts in knowledge, empathy, and action. Student statements such as "Caring for the earth is part of faith" affirm the internalization of religious values that cultivate eco-spiritual consciousness. This supports (Duda, 2022) assertion that spirituality-based environmental education fosters more enduring change than purely cognitive approaches.

The Green Islamic Pedagogy model also illustrates how the three foundational values *aqidah*, *sharia*, and *akhlaq*, function as a moral framework guiding learning activities (Priyana dkk., 2025). Strategies such as *dhikr of nature*, contextual learning, and integrating Qur'anic verses with empirical experience help students connect revelation with ecological realities. The result is the development of an ecological character that is not only knowledgeable but also spiritually grounded.

Nevertheless, several limitations should be acknowledged. First, teacher readiness remains uneven; some teachers require additional training to implement reflective and project-based approaches. Second, contextual factors such as the availability of green facilities, school-level support, and local cultural norms influence the intensity and sustainability of the program. Third, the model's scalability requires further trials in different school settings to ensure applicability across diverse contexts.

Overall, this discussion demonstrates that Green Islamic Pedagogy is an integrative and applicable model that connects Islamic theology with reflective pedagogy and ecological action. By streamlining repetitive content, strengthening empirical evidence, linking tables more explicitly with the narrative, and acknowledging implementation constraints, this section becomes more focused, argumentative, and persuasive reinforcing the model's contribution to ecopedagogical transformation within Islamic Religious Education.

CONCLUSION

This study addresses the limited pedagogical integration of Islamic environmental ethics in primary-level Islamic Religious Education (PAI) by proposing a contextual model of *Green Islamic Pedagogy*. The findings show that the theological principles of *khalifah*, *amānah*, and *tawāzun* can be operationalized as pedagogical foundations shaping learning objectives, instructional materials, classroom interactions, and reflective practices. *Khalifah* was enacted through experiential eco-projects, *amānah* through moral reflection and collective responsibility, and *tawāzun* through reflective discussions on ecological balance, resulting in enhanced ecological awareness, moral sensitivity, and environmentally responsible attitudes among students. Practically, the study provides concrete guidance for lesson planning, reflective and project-based learning, affective assessment, and teacher training in PAI. Although context-specific, the findings underscore the potential of *PAI* as a strategic platform for advancing the educational spirit of the SDGs, particularly SDG 4, SDG 12, and SDG 13, and call for further research on the model's transferability and long-term impact.

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