

ECO-QUR'ANIC PESANTREN AND ENVIRONMENTAL STEWARDSHIP: EVIDENCE FROM BAITUL HIKMAH TEMPUREJO JEMBER



Sofiah¹, Zulfa Ahmad Kurniawan², and Muhammad Korib³

***Correspondence:**

Email : sofiah1086@gmail.com

Affiliation :

¹²³UIN Kiai Haji Achmad
Siddiq Jember, Indonesia

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Abstract

The environmental crisis is a global issue that threatens human sustainability and necessitates new concepts to address it. Eco-Qur'anic Pesantren is a concept designed to instill environmental awareness rooted in Quranic values. This study aims to analyze the implementation of Quranic values in shaping eco-friendly character at Pesantren Baitul Hikmah Tempurejo, Jember, and its contribution to the Sustainable Development Goals (SDGs). This research employs a qualitative case study approach to explore environmental education practices within the pesantren context. Data collection involves participatory observation, in-depth interviews, and documentation, with data validity ensuring credibility, transferability, dependability, and confirmability. The results indicate that the implementation of Quranic values is realized through curriculum integration, green land utilization programs, 3R-based (Reduce, Reuse, Recycle) waste management, and the Kyai's exemplary leadership. This study concludes that the Eco-Qur'anic concept contributes to achieving SDGs, specifically Quality Education (SDG 4), Sustainable Cities and Communities (SDG 11), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13), and Partnerships for the Goals (SDG 17).

INTRODUCTION

The environmental crisis has emerged as a critical global issue that continues to threaten the sustainability of human life. Climate change, ecosystem destruction, air pollution, and soil degradation are the consequences of human activities that exploit nature without limits. The report by the Intergovernmental Panel on Climate Change (IPCC, 2023) demonstrates that global temperatures have risen significantly due to escalating greenhouse gas emissions, thereby resulting in widespread impacts on food systems, public health, and the global economy (Calvin et al., 2023). This situation necessitates a new approach to development that is not solely oriented toward economic growth, but also prioritizes environmental sustainability and social well-being.

In the global context, the Sustainable Development Goals (SDGs) serve as a development agenda adopted by the United Nations (UN) member states to achieve a balance among the economic, social, and environmental dimensions. Comprising 17 goals and 169 targets, the SDGs are intended to serve as a blueprint for every nation in realizing sustainable development that is both equitable and environmentally sound (Nations, n.d.). As a UN member state, Indonesia is committed to implementing the SDGs through various national policies that emphasize sustainable development anchored in local wisdom and religious values. As the nation with the world's largest Muslim population, Indonesia possesses significant potential to integrate Islamic values into the realization of this sustainable development.

Ecological awareness is intrinsic to the Islamic tradition rather than being a modern innovation. The Qur'an designates humans as *khalifah fil ardh*, or stewards of the earth, entrusted with the responsibility of preserving the balance of nature and averting harm.



Verses such as Q.S. Al – Baqarah Q.S. Al – Baqarah [2]: 30 and Ar – Rum [30]: 41 explicitly attribute environmental degradation to human agency. Consequently, these principles provide Islam with a strong theological basis for the pursuit of environmental preservation (Nashr, 1990). Therefore, Islamic education plays a pivotal role in cultivating ecological consciousness rooted in Qur'anic values. As the oldest Islamic educational institutions in Indonesia, Pesantrens hold a strategic position in shaping the character and behavior of society. The Pesantren tradition emphasizing discipline, simplicity, and communal spirit can serve as a robust foundation for instilling ecological values (Dhofier, 2011). The integration of Qur'anic teachings on the environment into the Pesantren education system is expected to cultivate a generation of santri who possess a deep concern for environmental preservation. Environmental education based on Qur'anic values in Pesantrens serves not only to foster ecological knowledge but also to mold a moral and spiritual character in alignment with the principles of sustainability.

From this context emerges the concept of the Eco – Qur'anic Pesantren, defined as a Pesantren that instills environmental awareness based on Qur'anic values (Afia et al., 2022). This concept emphasizes that every human activity, including the management of natural resources, must be grounded in Islamic values such as tawhid (the unity of creation), mizan (balance), amanah (trusteeship), and ihsan (benevolence towards living beings) (Dien, 2002). The term 'Eco – Qur'anic' itself is employed by Slamet Firdaus to describe an ecological approach derived from Qur'anic values within the context of the circular economy and sustainable development (Firdaus, 2022). Within the Pesantren context, this approach is translated into various educational and social practices oriented toward nature conservation and social well – being. Furthermore, the concept of the Eco – Qur'anic Pesantren holds strong relevance to the achievement of the SDGs. The application of Qur'anic values in environmental management within Pesantrens can contribute to the realization of key SDG targets, specifically SDG 4 (Quality Education), SDG 13 (Climate Action), and SDG 15 (Life on Land) (UNDP, 2021). SDG 4 emphasizes the importance of inclusive education oriented toward sustainable development, while SDG 13 and SDG 15 highlight the need for concrete action on climate change mitigation and the preservation of terrestrial ecosystems. Through greening initiatives, waste management, and environment – based education, Pesantrens can serve as active agents in realizing sustainable development.

In Indonesia, a growing number of pesantren (Islamic boarding schools) have embraced eco – friendly principles, implementing systems for waste management, renewable energy, and organic agriculture. Pesantren Baitul Hikmah Tempurejo Jember, the primary locus of this research, stands as a prominent example of this shift. Known for a Qur'anic educational vision that prioritizes self – reliance, simplicity, and social welfare, the institution has recently expanded its scope to include environmental programs. These include student – led reforestation efforts, organic composting, and community – based renewable energy training. Such integration of Qur'anic values into educational, religious, and social spheres offers a tangible example of the "Eco – Qur'anic" concept applied in a local context. Pesantren Baitul Hikmah was selected for this study due to its innovative approach and steadfast commitment to Islamic – based environmental education. Rather than relying solely on theoretical instruction, the school integrates practical application into the students' daily routines. By habituating practices such as cleanliness, energy efficiency, and environmental stewardship, the institution cultivates an environmentally conscious character among its students. Ultimately, this approach demonstrates a synergy between spiritual values and ecological responsibility—the very core of sustainable development.

Previous studies on pesantren have predominantly examined educational, economics and da'wah dimensions, while environmental aspects remain relatively underexplored (Abubakar et al., 2025; Husaini, 2025; Lathifah et al., 2025; Saleh, 2025). Furthermore, limited attention has been given to understanding how eco – friendly pesantren practices contribute to the achievement of the Sustainable Development Goals (SDGs) (Iriawan et al., 2026; Maghfiroh et al., 2024). Therefore, this study addresses this gap by investigating the implementation of Eco – Qur'anic values in shaping environmental stewardship and examining their contribution to SDGs achievement within the context of Pesantren Baitul Hikmah Tempurejo Jember.

Thus, this study seeks to assert that the pesantren functions not merely as a religious and educational institution but also as a center for ecological movements grounded in Qur'anic values. Through the internalization of Eco – Qur'anic values, the pesantren has the potential to cultivate a generation characterized by environmental consciousness, thereby making a tangible contribution to achieving the SDGs in Indonesia. Based on this background, the present study addresses two primary questions: first, how are Qur'anic values implemented to foster environmentally friendly character at Pesantren Baitul Hikmah Tempurejo, Jember? Second, how does the Eco – Qur'anic Pesantren contribute to supporting the achievement of the SDGs? Accordingly, the objectives of this research are to examine the implementation of Qur'anic values in shaping environmentally friendly character at the study site and to identify the tangible contributions of the Eco – Qur'anic Pesantren within the framework of the global sustainable development agenda.

LITERATURE REVIEW

This study is grounded in the perspective of Islamic environmental ethics (ecotheology), which emphasizes the relationship between humans, nature, and God as an integrated system of responsibility and stewardship. Within this framework, humans are regarded as *khalifah fi al-ardh* (vicegerents on earth) who are entrusted with the obligation to protect, manage, and sustain the environment responsibly (Nasr, 1996; Al – Faruqi, 1992). Islamic environmental ethics further promotes principles such as *mizan* (balance), *amanah* (trust), *i'mar al-ardh* (prospering the earth), and the prohibition of *fasad* (environmental destruction) and *israf* (excessive consumption). These principles provide the theoretical foundation for understanding how Islamic educational institutions can cultivate environmental responsibility and sustainable behavior.

In this study, the term ecological dimension refers to the integration of environmental values, attitudes, and practices within the educational, social, and cultural systems of the *pesantren*. Meanwhile, eco – friendly behavior is defined as individual and collective actions aimed at protecting natural resources, reducing environmental degradation, promoting waste reduction and recycling, conserving energy and water, and maintaining environmental sustainability. These behaviors are not merely technical practices but are rooted in ethical and religious values that shape environmental stewardship among students.

Existing scholarship regarding eco – friendly *pesantren* covers a diverse range of inquiries, with a predominant emphasis on economic empowerment and waste management. Globila, dkk (Nurika, Globila, Purta, Dewa, Novta, Niajeng, Rifdul, 2022) highlight the importance of waste bank management in *pesantren*, noting that it not only maintains cleanliness but also provides economic value to the surrounding community. In a similar vein, Andrio (Andrio, David, Shinta, Gunadi, Aryo, 2023) developed an innovative method for organic waste processing using Black Soldier Fly (BSF) maggots as livestock feed, which has proven effective in increasing student income through the development

of life skills. Meanwhile, Zuhdi, dkk (Zuhdi, Afifudin, Azizah, 2022) deepened this analysis by emphasizing student empowerment through the circular economy concept in *pesantren* waste banks, which feature a circular production flow from upstream to downstream to reduce environmental residue.

Regarding the dimensions of culture and character formation, several researchers have highlighted how *pesantren* establish self-reliant ecosystems. Suryanto (Suryanto, Bradhiansyah, 2020) describes the *pesantren*'s efforts to realize self-reliance and implement an environment-based curriculum as the foundation of *pesantren* culture. An ethnographic study by (Mulya, 2025) enriches this perspective by highlighting the integration of *izān* and *i'māru al-ardh* values within organic farming practices, where students interpret farming activities as acts of worship (*ibadah*). Similar findings were reported by Basri (M. H. Basri, 2022) in a study at Annuqayah, which concluded that the concept of 'Green Islam' successfully constructed an educational ecosystem that culturally instills ecological ethics through religious symbols and rituals (Joni & Zuleika, 2018).

Furthermore, the effectiveness of environmental education is strongly influenced by learning methods and leadership factors. Aulia, dkk (Aulia et al., 2024) assert that a learning model integrating theory, practice, and institutional support is key to changing student behavior. In the context of the curriculum, Syukri, et al. (2024) found that integrating environmental ethical values into *fiqh* (Islamic jurisprudence) materials can enhance students' positive attitudes toward nature, although challenges remain regarding post-learning supervision. The central role of the caregiver is also highlighted by Taufik, dkk (Taufik et al., 2025), who concluded that the visionary leadership of the *Kyai* is a determinant factor in the successful implementation of eco-friendly policies that support the achievement of the SDGs.

In a broader context, Basri, et al. (S. Basri et al., 2024) formulated an Islamic Environmental Ethics framework as a cultural and spiritual foundation for sustainable resource management. This study asserts that theological values such as *amanah* (trust) and the prohibition of *israf* (excess) can be adapted into public policy and education.

Based on the foregoing review, this research offers a clear distinction compared to previous studies. While prior research has focused primarily on technical agricultural aspects (Mulya, 2025), symbolic-ethnographic dimensions (M. H. Basri, 2022), or managerial aspects (Aulia et al., 2024), this study specifically examines the formation of environmentally conscious character based on the *Eco-Qur'anic* concept. This is achieved through a system of curriculum and habituation that is directly linked to the indicators of the Sustainable Development Goals (SDGs).

Theoretical Framework

The philosophical foundation of this research is based on Islamic Ecotheology, which views the relationship between God, humanity, and nature as a cosmic unity (*tawhīd al-kawnī*). Al-Faruqī asserts that the exploitation of nature is a form of betrayal of the trust of stewardship or *khilafah* (al Frūqī, 1992), thus, the anthropocentric paradigm must be shifted toward a theocentric paradigm (Ziauddin, 2010). Seyyed Hossein Nasr (Nasr, 1990, 1996) describes the modern environmental crisis as a spiritual crisis resulting from the loss of the sacredness of nature, even though the universe consists of God's signs (*ayat*) that must be treated with reverence.

Within this theological perspective, humans hold a central yet limited role. Al-Ghazali (Al-Gazzali, 1982) emphasizes that every creation possesses divine wisdom, while Ibn Khaldun (Khaldun, 2005) warns that an imbalance in the relationship between humans and nature will lead to the destruction of civilization. Therefore, as *khalifah*, humans are

obligated to maintain the balance (*mīz n*) of nature, in accordance with Fakhruddin al – Razi's interpretation (Nashr, 1996), Furthermore, they must treat environmental conservation as a form of devotion (al Frūqī, 1992) and a tangible manifestation of *tawhīd*.

The translation of theological values into the realm of praxis is carried out through Islamic Education. According to Al – Attas, the goal of education is to instill *adab*, which implies placing nature according to its proper function and not treating it arbitrarily (Al – Attas, 1980). Effective environmental education must address cognitive, affective, and conative aspects simultaneously (Tilbury, 2014). Yusuf Qardhawi (Al – Qarḍwy, 2002) asserts that destroying the environment is a form of disobedience (*ma'siyah*), therefore, Islamic education must involve spiritual awareness (Tilbury, 2014). In this context, the *pesantren* plays a role as a moral community that instills socio – ecological ethics.

The process of internalizing these values requires strategies of habituation and role modeling. Nata emphasizes the importance of ethical habituation (Nata, 2016), which aligns with Bandura's social learning theory, where moral behavior is formed through observation of exemplary figures (*Kyai* or *Ustadz*) (Bandura, 1971). Through this approach, students are encouraged to read the 'book of nature,' as expressed by Rumi (2006), thereby establishing a robust eco – spiritual literacy.

Specifically, this educational model is formulated within the concept of Eco – Qur'anic *Pesantren*. This term was introduced by Slamet Firdaus as the integration of Qur'anic values in building sustainable ecosystems (Firdaus, 2022). The concept is based on the principles of *tawhīd*, *khalifah*, *i'tidāl* (moderation), and *islāḥ* (improvement) (Mawardi, 2020). Its implementation encompasses four main pillars: ecological *tawhīd*, the responsibility of *amanah* (trust), moderation in consumption (*iqtisād*), and environmental improvement as social worship (Firdaus, 2022). Mawardi describes this approach as the revitalization of *mīz n* and justice values (Mawardi, 2020), which transforms the *pesantren* from merely a religious educational institution into a center for socio – ecological empowerment.

Table 1. Eco – Qur'anic Values in the Qur'an

Surah and Verse	Eco-Qur'anic Values
Q.S. Al – Qasas: 78; Q.S. Ar – Rum: 41	Prohibition against causing corruption or destruction (<i>Fasad</i>) on earth.
Q.S. Al – Ahzab: 72; Q.S. Al – An'am: 165	The duty of the <i>Khalifah</i> (vicegerent) on earth to fulfill the <i>Amanah</i> (divine trust) and bear the responsibility for safeguarding nature and the environment.
Q.S. An – Nahl: 65; Q.S. Qaf: 9	The creation of rainwater and its conservation to revitalize vegetation on earth.
Q.S. Al – An'am: 38; Q.S. An – Nahl: 68 – 69; Q.S. Al – Maidah: 4	The creation of animals that provide benefits for human well – being.
Q.S. Az – Zumar: 21; Q.S. An – Nahl: 15; Q.S. Ar – Rahman: 19 – 20; Q.S. Al – A'raf: 57; Q.S. Ar – Rum: 48; Q.S. Ar – Ra'du: 12	The creation of the heavens and their contents; all natural phenomena occur according to <i>Sunnatullah</i> (Divine Law).
Q.S. Al – Isra: 110	Humans acknowledge God as the Creator of the heavens and the earth, who is constantly praised by His servants. This constitutes the Eco – Qur'anic concept serving as the foundation for human environmental stewardship.

Source: Authors' synthesis based on Qur'anic verses relevant to environmental stewardship.

In a global context, this concept intersects with the Sustainable Development Goals (SDGs), a UN agenda comprising 17 goals aimed at achieving economic, social, and environmental balance (Nations, n.d.), succeeding the Millennium Development Goals (MDGs). The SDGs are grounded in the triple bottom line principle (economic, social, and environmental) (Elkington & Rowlands, 1999) as well as intergenerational equity (Hopwood, B., Mellor, M., & O'Brien, 2005). Indonesia has adopted this agenda in the 2020–2024 RPJMN (Bappenas, 2020), wherein the Muslim community holds a highly strategic potential for contribution (Santoso, 2021).

The relevance of Islam to the SDGs is very strong because the principles of sustainable development are aligned with the concepts of *khalifah* (stewardship) and *tawazun* (balance) (Al–Attas, 1980). Sachs emphasizes that the success of the SDGs requires a strong moral foundation (Sachs, 2015), and Islam provides this global ethical framework through the prohibition of *israf* (excess) and the command of *ihsan* (benevolence) to realize equitable well–being (Al–Qaradwy, 2002).

METHOD

This study employs a qualitative approach utilizing a case study design. This approach was selected because the researcher aims to gain an in–depth understanding of how Qur'anic values are integrated into the formation of environmentally friendly character at *Pesantren* Baitul Hikmah Tempurejo Jember, as well as how this concept contributes to the achievement of the Sustainable Development Goals (SDGs). According to Creswell (Creswell & Creswell, 2017), qualitative research aims to explore the meanings underlying social phenomena through an in–depth interpretation of subjects' behavior within their natural setting. Furthermore, according to Yin (Yin, 2014), the case study approach is utilized to investigate a system, event, or program in great detail and depth within a real–life context, particularly when the phenomenon is closely connected to its social and institutional environment.

The research was conducted at *Pesantren* Baitul Hikmah Tempurejo, Jember Regency, East Java Province, from September to October 2025. This *pesantren* was selected using a purposive method because its characteristics align with the research focus, specifically the implementation of eco–friendly education rooted in Qur'anic values. The research subjects were determined through purposive sampling based on their involvement, experience, and understanding of Eco–Qur'anic practices within the *pesantren* environment (Sugiyono, 2018). Informants were purposively selected based on their level of involvement, knowledge, and length of experience in Eco–Qur'anic activities within the *pesantren*. These included the Kyai, who had more than 15 years of leadership experience, teachers (*ustadz/ustadzah*) with at least 5 years of service, and students (*santri*) who had participated in the *pesantren's* educational and environmental programs for more than 2 years. The subjects consisted of the *Pesantren* Leader (*Kiai*), teachers (*Ustadz/Ustadzah*), students (*Santri*), student organization administrators, and local community figures involved in environmental and educational activities.

Data analysis applied the model by Miles, Huberman, and Saldaca (Miles et al., 2014), consisting of data reduction, data display, and conclusion drawing/verification. The collected data were organized, coded, and categorized into major themes related to Eco–Qur'anic values, environmental character formation, and contributions to the SDGs. The identified themes were subsequently interpreted to examine how Eco–Qur'anic practices support the achievement of relevant SDG targets.

To ensure the trustworthiness of the findings, this study adopted Lincoln and Guba's criteria of credibility, transferability, dependability, and confirmability (Denzin, N. K., &

Lincoln, 2018). Credibility was enhanced through prolonged engagement in the field, triangulation of data sources, methods, and time, as well as member checking with key informants. Transferability was supported by providing thick descriptions of the research context, participants, and institutional setting. To address concerns regarding the consistency and reliability of qualitative findings, dependability was strengthened through an audit trail documenting all research procedures, field notes, interview protocols, coding processes, and analytical decisions. In addition, peer debriefing was conducted with academic colleagues to review data interpretation and coding consistency. Confirmability was established by maintaining reflexive notes throughout the research process and ensuring that findings were grounded in empirical evidence rather than researcher bias (Sugiyono, 2018).

RESULTS AND DISCUSSIONS

Results

1. The Implementation of Qur'anic Values in Cultivating Eco-Friendly Character

The development of character at *Pesantren* Baitul Hikmah Tempurejo is derived from the operationalization of Qur'anic values, which are embedded within the curriculum, waste management systems, and the exemplary leadership of the *Kyai*.

a. The Integration of Qur'anic Values within the Pedagogical Curriculum

The inculcation of eco-friendly character at *Pesantren* Baitul Hikmah is formally embedded within the official curriculum structure, underpinned by the vision to "produce students who are environmentally conscious and capable of implementing the values of *khalifah fil-ardh* (vicegerency on earth)." At the implementation level, this integration is particularly distinct in subjects such as Natural Sciences (*IPA*), Islamic Jurisprudence (*Fiqh*), and Islamic Religious Education (*PAI*), wherein environmental subject matter is systematically linked to *kauniyah* verses, including Q.S. Ar-Rum: 41, Q.S. Al-A'raf: 56, and Q.S. Al-Baqarah: 30.

This assertion is corroborated by the Kulliyatul Mu'allimin Al-Islamiah (KMI) Director, H. M. Yusfihadi (Yusfiadi, 2025):

"In this institution, students do not merely study Natural Sciences regarding pollution from a theoretical perspective; rather, we connect it with the human responsibility of khalifah... We have designed the pesantren curriculum utilizing the KMI framework, ensuring that all subjects are integrated with Qur'anic values."

Regarding classroom practice, Eka Widiati, a Natural Science teacher, explained that instructional methods are integrated with discussion and direct observation (Widiati, 2025).

"Typically, prior to commencing the lesson, I invite the students to engage in tadabbur (contemplation)... From this, they realize that indiscriminate waste disposal is not a trivial issue. We also instruct them on how to analyze the environmental impact of waste."

Within the environmentally integrated lesson plan (RPP), students are tasked with observing the condition of drainage systems and waste repositories as a form of practical application. This pedagogical approach resonates with the assertion of the *Pesantren* Leader, Kiai Baihaqi Busri, who underscores the concept of *tafsir amali* (interpreting the Qur'an through deeds) (Busri, 2025).

"Hence, instruction here must establish a synergy between textual study (kitab), nature, and ethics (akhlak)... In public speaking exercises, for example, we frequently highlight

environmental themes. It is through this process that students learn to identify the nexus between Qur'anic verses and contemporary environmental issues."

From the students' vantage point, the efficacy of this integration is tangibly felt. Novita Ayu remarked (Wahdati, 2025) :

"Here, we are invited to reflect from a religious perspective... Consequently, the act of littering evokes a sense of sin."

Therefore, the integration of Qur'anic values at *Pesantren Baitul Hikmah* is not merely cosmetic; rather, it constitutes a holistic educational system that fuses knowledge, faith, and praxis as the bedrock of eco – friendly character.

b. Eco – Friendly Initiatives at *Pesantren Baitul Hikmah Tempurejo Jember*

Environmental initiatives at this institution are not merely ad – hoc activities but constitute an intrinsic daily culture rooted in the principle of *khalifah fil ardh* (stewardship). These initiatives are operationalized through two core strategies:

3R – Based Waste Management (Reduce, Reuse, Recycle) This framework is adopted as a moral and spiritual imperative. In terms of Reduce, Dini Kamala underscores the necessity of mitigating plastic consumption to prevent students from becoming a "waste generation" that degrades God's creation, citing the prohibition of *israf* in Q.S. Al – A'raf: 31 (Kamala, 2025). Practically, this is facilitated by the provision of refillable water stations sourced from self – conserved supplies to minimize reliance on bottled water, as elucidated by Yusufhadi Busri (Y. Busri, 2025). Furthermore, hygiene discipline is strictly monitored each morning by Ustad Zainurrohman before academic sessions commence (Zainurrohman, 2025).

Regarding Reuse, the *pesantren* conducts a monthly "Clothing Auction." Wasi'atul Arifah clarifies that this program is designed to repurpose unclaimed garments to avoid *tabdzir* (squandering) (Arifah, 2025), aligning with Q.S. Al – Isra': 26. Concerning Recycle, students are conditioned to segregate waste. Siti Aisyah notes that plastic waste is upcycled into artistic products, such as JFC costumes, a process viewed as a form of devotion (*ibadah*) (Aisyah, 2025). Yusufhadi Busri adds that inorganic waste is transformed into ecobricks, whereas organic waste is processed into compost, embodying the concept of earth restoration as prescribed in Q.S. Al – A'raf: 56 (Y. Busri, 2025).

In addition, green spaces within the *pesantren* are optimized as a vehicle for character education and as a concrete manifestation of *Eco-Qur'anic* practices. Observational data indicates the presence of approximately 665 varieties of shade and herbal plants, fostering a verdant and serene atmosphere. Kiai Baihaqi Busri, the *Pesantren* Leader, elucidated that this planting tradition stemmed from a personal hobby that subsequently developed into a sustained pedagogical culture, thereby mirroring the virtue of *istiqamah* (consistency) (B. Busri, 2025).

Complementing the greening initiatives, the *pesantren* has cultivated a hydroponic farming system that integrates waste recycling. Ustadz Al Farizi elucidated that the growth media utilize repurposed bottles and cardboard, with the harvest consumed by the *pesantren* residents to preclude *mubazir* (wastefulness) (Alfarisi, 2025). Furthermore, Nur Ima Daroini asserted that the agricultural workflow spanning from the nursery stage to routine maintenance functions as an effective vehicle for cultivating patience and instilling a sense of environmental stewardship among the students (Daroinim, 2025).

c. The Exemplary Behavior of Kiai and Santri in Forming Environmentally Friendly Characters

The cultivation of eco–friendly character at *Pesantren* Baitul Hikmah Tempurejo Jember is internalized through a system of collective role modeling (*uswah*) cascading from the leadership hierarchy to the student body. Kiai Baihaqi Busri, serving as the central figure, demonstrates this through concrete actions such as waste collection and plant care. He maintains that leadership transcends verbal instruction; it is the substantiation of responsibility in preserving the divine trust as *khalifah fil ardh* (Q.S. Al–Baqarah: 30). This ethos is adopted by the *Ustadz* and administrators, including Dwi Yulia and Ustadz Badrus Syamsi, who actively supervise students in hygiene discipline and water conservation, aiming to prevent extravagance (*israf*) as proscribed in Q.S. Al–A'raf: 31 (Syamsi, 2025; Yulia, 2025).

Furthermore, this exemplary culture is deeply entrenched horizontally among the students (peer influence). Novita Ayu and Wardatul Azizah noted that compliance in environmental preservation stems from a "culture of shame" triggered by observing senior students, alongside a custom of mutual, gentle admonition (Ayu & Azizah, 2025). This suggests that environmental stewardship has evolved into a collective responsibility and a benchmark of piety. As Kiai Baihaqi emphasizes, the inhibition or shame regarding environmental destruction is evidence of a student's vibrant faith. Thus, the synergy between curriculum integration, practical programs, and exemplary leadership ensures that eco–friendly behavior within the *pesantren* develops into a resilient spiritual culture, rather than existing solely as a formalistic rule.

2. The Contribution of the Eco-Qur'anic *Pesantren* towards Realizing Sustainable Development Goals (SDGs)

Pesantren Baitul Hikmah Tempurejo Jember contributes to the realization of the SDGs by taking concrete measures to cultivate the moral consciousness of students as *khalifah fil ardh* (stewards of the earth), transcending mere physical infrastructure development. The paramount contribution is observed within the realm of environmental consciousness education. Kiai Baihaqi Busri posits that the benchmark for educational success extends beyond academic intellect to include the students' environmental sensitivity upon their reintegration into society (B. Busri, 2025). This perspective is corroborated by the KMI Director, H. M. Yusfihadi, who implements a curriculum and structured habituation to ensure that this ethos of stewardship is internalized and propagated by alumni within their respective communities of service (Y. Busri, 2025).

Transcending formal pedagogy, essential contributions are actualized through a structured habituation of clean living. Wasi'atul Arifah elucidated the formation of specialized Working Groups (*Pokja*), including recycling teams and environmental task forces, designed to regulate organic and inorganic waste management for sustainable long–term impact (Arifah, 2025). The efficacy of this conditioning is corroborated by Puji Lestari, a student who reported a cognitive paradigm shift; she now experiences discomfort upon encountering filth and exhibits the discipline to retain personal refuse until a proper disposal facility is located (Lestari, 2025).

Moreover, the *pesantren* expands its ecological footprint to the neighboring community through dissemination and collaborative engagement. Dini Kamala expounded that the *Asatidz* actively deliver environmental education, partner with medical personnel, and involve citizens in communal cleanup activities (*kerja bakti*) (Kamala, 2025). These reforestation and waste management initiatives do not merely cultivate a serene

atmosphere for guardians and locals; they also function as a pedagogical bridge connecting the *pesantren* with the broader community.

Discussions

1. The Implementation of Qur'anic Values in Cultivating Eco-Friendly Character

The cultivation of eco – friendly character at *Pesantren* Baitul Hikmah is predicated on the contextual internalization of Qur'anic values rather than a conventional reward – and – punishment mechanism (Jamaludin et al., 2023). This pedagogical strategy resonates with Al – Attas's concept of *ta'dib*, which posits that the objective of Islamic education is to mold civilized human beings through role modeling, habituation, and experiential learning, rather than relying solely on didactic instruction (Al – Attas, 1980). Additionally, the curriculum integration that bridges scientific knowledge with theological consciousness (*ayat kauniyah*) aligns with Seyyed Hossein Nasr's eco – theology; Nasr argues that the environmental crisis is not merely a technical issue but fundamentally a spiritual crisis of modern man (Nashr, 1996).

From a practical perspective, the implementation of the 3R principles (reduce, reuse, recycle) within the *pesantren* corroborates the findings of Nashihin et al. (Nashihin, Husna, 2022), who assert that education grounded in eco – spiritualism effectively mitigates environmental degradation, adhering to the prohibition against extravagance in Q.S. Al – Isra': 26 – 27. Moreover, the exemplary leadership (*uswah*) demonstrated by the *Kyai* and *Ustadz*—who actively participate in hygiene maintenance and reforestation—constitutes a pivotal factor. This reality reaffirms the classical Islamic educational theory that role modeling serves as the paramount method in moral pedagogy (Nata, 2016).

2. The Contribution of the Eco-Qur'anic *Pesantren* towards Sustainable Development

Drawing from the presented findings, it is evident that the *Eco-Qur'anic* contribution at *Pesantren* Baitul Hikmah does not operate in a vacuum. The internalization of Qur'anic values throughout the curriculum, waste management initiatives, green space utilization, and the exemplary leadership of the *Kyai* demonstrates a profound alignment with the global Sustainable Development Goals (SDGs). These contributions can be delineated into the following five distinct aspects:

a. Contribution to Quality Education (SDG 4)

The most substantial contribution of the *Eco-Qur'anic Pesantren* model is the delivery of education that is both meaningful and contextually grounded. The pedagogical approach at Baitul Hikmah transcends the traditional transfer of knowledge by fostering ecological consciousness and moral stewardship. Environmental education is systematically integrated with Qur'anic values across the curriculum. As explained by the Director of KMI, environmental protection is taught as part of humanity's responsibility as *khalifah* and an *amanah* from Allah (Interview with Yusfihadi, 2025). This integration is also reflected in classroom practices, where environmental issues such as pollution are linked to Qur'anic teachings that prohibit environmental destruction, encouraging students to critically reflect on their environmental responsibilities (Interview with Eka Widiyanti, 2025). The impact of this approach is evident in students' attitudes; one student reported that learning environmental issues through a religious perspective fostered a sense of moral responsibility and discouraged littering (Interview with Novita Ayu, 2025). These findings indicate that the Eco – Qur'anic approach promotes transformative learning by shaping students' values, attitudes, and daily practices. Therefore, the model

aligns closely with the principles of Education for Sustainable Development (ESD), which emphasize transformative pedagogy for sustainability—oriented mindsets and lifestyles (Tilbury, 2011).

b. Contribution to Environmental Objectives and Climate Action (SDG 13)

Concrete initiatives including reforestation, waste management, and water conservation—constitute a direct contribution to environmental preservation and climate action. At Pesantren Baitul Hikmah, environmental stewardship is translated into practical activities such as tree planting, waste segregation, recycling programs, and the provision of refillable drinking water systems to reduce plastic consumption. According to the Director of KMI, the pesantren provides drinking water stations and encourages students to use reusable tumblers instead of disposable plastic bottles (Interview with Yusfihadi, 2025). Waste management practices are also implemented through the separation of organic and inorganic waste, with recyclable materials being transformed into ecobricks and other creative products, while organic waste is processed into compost for the pesantren's green spaces (Interview with Yusfihadi, 2025). In addition, environmental conservation is supported through routine planting and maintenance activities that actively involve students in caring for vegetation and green areas (Interview with Nur Ima Daroini, 2025). Although locally scaled, these initiatives align with broader climate action and environmental sustainability objectives. As noted by Kiai Baihaqi Busri, environmental protection is viewed as a religious responsibility, where caring for nature reflects the fulfillment of God's trust (*amanah*) and the avoidance of environmental destruction (*fasad*) (Interview with Baihaqi Busri, 2025). These findings demonstrate how the Eco – Qur'anic Pesantren model functions as a grassroots environmental movement that integrates ecological practices with religious values, thereby contributing to the achievement of SDG 13 (Sachs, 2015).

c. Contribution to Responsible Consumption and Production (SDG 12)

The culture of austerity within the pesantren manifested in the reduction of water and electricity waste, the reuse of materials, and recycling practices contributes to the development of responsible consumption and production patterns. This commitment is reflected in various daily practices. According to the Director of KMI, the pesantren provides drinking water stations and encourages students to use reusable tumblers, thereby reducing dependence on single – use plastic bottles (Interview with Yusfihadi, 2025). Waste materials are further utilized through recycling initiatives, where plastic waste is transformed into ecobricks and creative products, while organic waste is processed into compost for the pesantren's gardens (Interview with Yusfihadi, 2025). In addition, the pesantren promotes the reuse of clothing through a "clothing auction" program aimed at preventing wasteful consumption and encouraging resource efficiency, in line with Islamic teachings against extravagance (*israf*) (Interview with Wasi'atul Arifah, 2025). Students also reported becoming more conscious of waste management and resource use after understanding these practices as part of their religious responsibility (Interview with Siti Aisyah, 2025). Consequently, the pesantren's contribution transcends technical measures; it embodies local wisdom that cultivates non – exploitative individuals who exercise restraint and demonstrate responsibility in resource utilization.

d. Contribution to Sustainable Cities and Communities (SDG 11)

While not a city per se, the *pesantren* functions as a microcosm of a sustainable community. The environment of Pesantren Baitul Hikmah—characterized by cleanliness, greenery, and environmental discipline—reflects the principles of sustainable communal

living. Sustainability practices are supported through organized student working groups responsible for sanitation, waste management, and environmental maintenance (Interview with Wasi'atul Arifah, 2025). These efforts are reinforced by a culture of mutual responsibility, where students actively remind one another to maintain cleanliness and environmental order (Interview with Wardatul Azizah, 2025). Furthermore, environmental initiatives extend beyond the *pesantren* through collaboration with local communities and environmental education activities (Interview with Dini Kamala, 2025). These findings demonstrate that sustainability at Baitul Hikmah is embedded not only in physical conditions but also in collective responsibility and community engagement, consistent with the objectives of SDG 11.

e. Contribution to Partnerships for the Goals (SDG 17)

Pesantren Baitul Hikmah further contributes to the partnership dimension through collaborations with the local community, educational institutions, and external partners in environmental campaigns. Empirical findings suggest that the *pesantren* does not operate in isolation; rather, it acts as a socio – religious hub that bridges religious values with social activism. As explained by Dini Kamala, Head of the Eco – *Pesantren* Team, the *pesantren* regularly collaborates with local communities through collective environmental activities and partners with health professionals to provide environmental education for students (Interview with Dini Kamala, 2025). These collaborative initiatives demonstrate that environmental stewardship is achieved through shared responsibility among multiple stakeholders. This reflects the core ethos of the SDGs, which posits that sustainable development cannot be attained by a single entity but necessitates networking and multi – stakeholder synergy.

CONCLUSION

Based on the research findings, the implementation of Qur'anic values in forming environmentally friendly character at *Pesantren* Baitul Hikmah Tempurejo is conducted through three main approaches. First, curriculum integration, wherein instructors not only convey theory but also analyze relevant verses such as Q.S. Ar – Rum: 41, Q.S. Al – A'raf: 56, Q.S. Al – Isra': 26, and Q.S. Al – Baqarah: 30. Second, the implementation of eco – friendly programs, including the utilization of green spaces and 3R – based waste management, grounded in Q.S. Al – A'raf: 58, Q.S. Fussilat: 30, and Q.S. Al – Baqarah: 30. Third, the aspect of role modeling demonstrated by the caregivers and teachers (Asatidz) as a form of habituation in environmental stewardship, as implied in Q.S. Al – Baqarah: 30 and Q.S. Al – A'raf: 31.

The application of this Eco – Qur'anic concept has been proven to make a tangible contribution to the achievement of the Sustainable Development Goals (SDGs) within the *pesantren* environment. These contributions encompass five primary goals: Quality Education (SDG 4), Sustainable Cities and Communities (SDG 11), Responsible Consumption and Production (SDG 12), Climate Action (SDG 13), and Partnerships for the Goals (SDG 17). This underscores that the *pesantren* is capable of playing an active role in the global development agenda.

This study also offers essential theoretical and practical implications. Theoretically, these findings expand the concept of Ecotheology previously discussed largely within the normative realm of exegesis (such as *khalifah fil ardh*, *fasad fil ardh*, and *mizan*) into concrete operationalization within the educational system. Practically, the research demonstrates that environmental programs do not necessitate substantial initial budgets. The internalization of Qur'anic values, leadership role modeling, and simple habituation

such as a culture of cleanliness and water conservation have proven effective in building students' ecological awareness.

As a recommendation for future action, the management of *Pesantren* Baitul Hikmah is expected to strengthen the Eco – Qur'anic *Pesantren* model in a more systematic and structured manner. Existing programs, such as greening and waste management, should be developed into components of a practical green entrepreneurship curriculum. This step is expected not only to reinforce the students' ecological character but also to unlock opportunities for them to develop economic potential based on environmental sustainability.

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