

FROM SPIRITUAL PIETY TO ECOLOGICAL PIETY: TRANSFORMING ISLAMIC EDUCATION THROUGH THE GREEN SCHOOL PROGRAM AT SMP CITRA ALAM GUNUNGKIDUL

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ABSTRACT

The ecological crisis reflects not only environmental degradation but also an ethical and spiritual problem in how humans understand and treat nature. Although Islamic education contains ecological principles such as *tawhīd*, *khalifah*, *amānah*, *mizān*, and the prohibition of *fasād*, previous studies have primarily focused on conceptual eco-theology and curriculum content, leaving the transformation of spiritual values into students' daily ecological practices insufficiently explained. This study examines the transformation of Islamic education from spiritual piety toward ecological piety through the Green School program at SMP Citra Alam Gunungkidul. It employed a qualitative case-study design involving nine purposively selected informants: school leaders, the Green School coordinator, Islamic Religious Education and science teachers, and four students. Data were collected through semi-structured interviews, observations, and document analysis and analyzed thematically. The findings indicate that ecological piety was constructed as an extension of spiritual piety and developed through curriculum integration, contextual learning, teacher exemplification, habituation, school culture, and student participation. These processes strengthened students' ecological knowledge, concern, responsibility, and practices, including waste management, resource conservation, and plant care. The study implies that Islamic environmental education should be implemented through a coherent whole-school ecosystem that connects religious values, learning experiences, institutional practices, and ecological action.

Keywords: Ecological Piety; Green School; Islamic Education; Environmental Education; Pro-Environmental Behavior

Received: 10-01-2026	Revised: 16-02-2026	Accepted: 28-03-2026
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INTRODUCTION

The ecological crisis is not merely a matter of physical environmental degradation it also reveals ethical and spiritual problems in how humans

understand and treat nature. Resource exploitation, pollution, waste generation, and consumerist behavior demonstrate that environmental knowledge does not always translate into ecological responsibility. From an Islamic perspective, nature is God's creation, sustained within an ordered and balanced system, while human beings serve as khalifah entrusted with preserving its continuity. The principles of tawhīd, khalifah, amānah, and mīzān, together with the prohibition of fasād, provide a theological foundation for a responsible relationship between humans and the environment (Bsoul et al., 2022). Piety, therefore, cannot be expressed solely through one's vertical relationship with God or social relationships with other human beings; it must also be manifested in concern for and concrete action to protect nature. In this context, ecological piety refers to environmentally responsible awareness, attitudes, and practices grounded in faith and understood as part of devotion to God.

Islamic education occupies a strategic position in cultivating ecological piety because it is concerned not only with mastery of religious knowledge but also with value internalization and the formation of conduct. Nevertheless, religious education in schools still tends to emphasize ritual and social dimensions of piety, while ecological responsibility receives comparatively limited attention. Rohman et al. (2024) found that ecotheological content in the Islamic Religious and Character Education curriculum remains limited and is concentrated primarily in the affective domain, with insufficient development in cognitive and instructional practice. This condition risks reducing environmental education to supplementary content without transforming students' religious perspectives. Integrating Islamic and environmental education is necessary so that students understand care for nature not merely as a social obligation but also as a religious responsibility. Islamic education must therefore move beyond the verbal transmission of teachings toward educational processes that connect spiritual values with everyday ecological experience.

A growing body of research has examined the relationship among religion, education, and environmental concern. Through conceptual analysis, Bsoul et al. (2022) showed that Islamic teachings offer a strong ethical basis for sustainable development, particularly through stewardship, balance, responsibility, and the prohibition of destructive conduct. Cholil and Parker's (2021) study of environmental education and ecotheology in Indonesian Franciscan schools demonstrated that religion can provide values, motivation, and practices for environmental education. In Islamic education, Rohman et al. (2024) emphasized the need to integrate Islamic ecotheology into the Islamic Religious Education curriculum so that ecological knowledge, attitudes, and action can develop proportionately. Amrullah et al. (2025) found that Islamic education can be

integrated with school environmental programs through curriculum integration, spiritual-ecological programs, school culture, and community engagement. Collectively, these studies show that religion can provide the moral and spiritual foundations for environmental education, while school programs create spaces in which these values become habits and actions. Rohman et al. (2024) Amrullah et al. (2025)

Other studies have focused more extensively on the outcomes of environmental education and green-school programs. Liu et al.'s (2024) systematic review showed that children's pro-environmental behavior encompasses resource and energy conservation, waste management, environmentally friendly mobility, and responsible consumption. Research on green curricula likewise suggests that curricula and school culture can help develop generations with the knowledge, awareness, and conduct required for sustainability. Ecological behavior, however, cannot be cultivated through knowledge transmission or green facilities alone. It requires direct experience, role modeling, habituation, participation, and consistent support from school culture. The Green School program should therefore be understood as a whole-school approach that integrates curriculum, instruction, management of the physical environment, institutional culture, and engagement by the entire school community. In Islamic education, this approach enables religious values to move from personal-ritual piety toward piety expressed through ecological responsibility.

Despite these important conceptual and empirical foundations, several gaps remain. First, much research on Islamic ecotheology is conceptual or curriculum based and therefore does not fully explain how theological values are translated into everyday educational practice. Rohman et al. (2024), for example, analyzed curriculum documents and teacher interviews but did not portray ecological education through students' concrete activities. Second, green-school research generally concentrates on environmental management, green infrastructure, environmental knowledge, or pro-environmental behavior and seldom investigates the spiritual foundations of such behavior. Third, although Amrullah et al. (2025) discussed the integration of Islamic education and environmental programs, their analysis emphasized integration strategies and sustainable character rather than transformations in students' understanding of piety. Fourth, ecological piety has been studied more often in Islamic boarding schools, as in Fatoni et al. (2025), while its formation in nature-based junior secondary schools remains underexplored. At Pesantren Ath-Thaariq, the principles of *amānah*, *mīzān*, *anti-isrāf*, and *anti-fasād* were translated through Qur'anic learning connected to agriculture and daily resource management; however, the

institutional context differs substantially from that of a general junior secondary school (Fatoni et al., 2025). Fatoni et al., 2025

Addressing these gaps, this study investigates the transformation of Islamic education from spiritual piety toward ecological piety through the Green School program at SMP Citra Alam Gunungkidul. Transformation does not imply abandoning spiritual piety; rather, it denotes extending the expression of spiritual values into ecological awareness and action. The study analyzes the construction of ecological piety in Islamic education, identifies how spiritual values are transformed into ecological practices through the Green School program, and examines the implications for students' ecological knowledge, attitudes, and behavior. Its scope extends beyond Islamic Religious Education content to include instruction, habituation, teacher exemplification, school environmental management, and student participation. The Green School program is thus examined as an educational ecosystem in which religious teaching, learning experience, school culture, and environmental action intersect.

This study is expected to contribute theoretically and practically to Islamic education. Theoretically, it extends the concept of piety beyond personal-ritual and social orientations to include an ecological dimension, while explaining relationships among spiritual values, educational processes, and environmental behavior. It also proposes a transformational framework linking Islamic values to curriculum, pedagogy, habituation, school culture, and students' ecological participation. Empirically, the study offers a contextual account of environmentally oriented Islamic education at the junior secondary level. Practically, the findings can inform schools, Islamic Religious Education teachers, and curriculum developers seeking to design environmental education that moves beyond knowledge and ceremonial activities, remains rooted in religious values, and becomes visible in daily conduct. Islamic education is thereby positioned as a transformative force capable of developing a generation that is both spiritually devout and ecologically responsible.

METHOD

This study employed a qualitative approach with a case-study design to develop an in-depth understanding of how Islamic education is transformed from spiritual piety toward ecological piety through the Green School program. The case was bounded by a specific setting, program, group of actors, and set of activities: the implementation of the Green School program at SMP Citra Alam Gunungkidul. A case study enabled a contextual and holistic examination of values, experiences, instructional practices, habituation, and school culture involved in cultivating students' ecological piety (Creswell & Poth, 2018; Yin, 2018).

The research was conducted at SMP Citra Alam Gunungkidul, which was purposively selected because it implements a Green School program and integrates educational activities with environmental stewardship practices. This setting was relevant for examining how Islamic spiritual values are translated into students' ecological knowledge, attitudes, and actions. The study focused on the construction of ecological piety in Islamic education, the transformation of spiritual values through the Green School program, and the program's implications for students' ecological behavior.

Nine informants were selected through purposive sampling on the basis of their knowledge, experience, involvement, and ability to provide information about the Green School program. They comprised the principal, vice principal for curriculum, Green School coordinator, Islamic Religious Education teacher, science teacher, and four students. Student participants were selected with consideration for their involvement in environmental activities, grade level, and capacity for reflective responses. This composition provided perspectives on policy, curriculum, instruction, program management, and student experience.

Tabel 1. Kode Informan

Informant	Number	Code
Principal	1	KS
Vice principal for curriculum	1	WKK
Green School program coordinator	1	KGS
Islamic Religious Education teacher	1	GPAI
Science teacher	1	GIPA
Student 1	1	PD-1
Student 2	1	PD-2
Student 3	1	PD-3
Student 4	1	PD-4
Total	9	

Data were collected through in-depth semi-structured interviews and non-participant observation. The semi-structured format ensured consistency with the interview guide while allowing informants to describe their experiences and perspectives openly. Interviews with the principal, vice principal, and program coordinator addressed the policy, objectives, planning, and management of the Green School program. Teacher interviews focused on integrating Islamic and environmental values into curriculum, instruction, role modeling, and habituation. Student interviews explored religious understandings of the environment, program experiences, attitudinal change, and ecological practices in everyday life.

Non-participant observations were conducted during classroom instruction and school environmental activities. The observations examined the integration of ecological messages into Islamic Religious Education, teacher-student interactions, waste management, plant care, water and energy conservation, environmental cleanliness, and forms of student participation in the Green School program.

The data were analyzed thematically in six stages: familiarization with the complete dataset, initial coding, grouping codes into themes, reviewing themes, defining and naming themes, and producing an interpretive account (Braun & Clarke, 2022). Interview transcripts and field notes were coded according to the study focus, including spiritual-ecological values, curriculum integration, contextual learning, role modeling, habituation, school culture, student participation, and ecological behavior. Codes with similar meanings were grouped into categories and themes, which were then interpreted to explain relationships among religious values, educational processes, the Green School program, and the formation of ecological piety.

Trustworthiness was supported through source triangulation, methodological triangulation, and member checking. Source triangulation compared information from school leaders, program managers, teachers, and students, while methodological triangulation compared interview and observational evidence. For member checking, relevant informants were asked to confirm interview summaries or interpretations. A research audit trail and analytic records were also maintained so that conclusions could be traced to field evidence (Lincoln & Guba, 1985).

The study adhered to research ethics. Each informant received information about the study's purpose, the nature of participation, data confidentiality, and the right to withdraw. Consent was obtained before interviews and observations. For student participants, consent procedures followed school requirements and included parental or guardian permission. Informants' names were replaced with codes to protect their identities and preserve confidentiality.

RESULTS AND DISCUSSION

The analysis generated three themes aligned with the research focus: (1) ecological piety as an extension of spiritual piety; (2) the transformation of spiritual values into ecological practices through the Green School ecosystem; and (3) the program's implications for students' ecological knowledge, attitudes, and behavior. Each theme was developed by comparing the perspectives of school managers, teachers, and students, thereby illuminating relationships among policy, educational processes, and learning experiences.

1. Ecological Piety as an Extension of Spiritual Piety

The first theme indicates that members of the school community did not regard ecological piety as a new form of piety separate from worship. Environmental concern was understood as a consequence of faith, the mandate of stewardship, and responsibility for maintaining the balance of God's creation. The principal emphasized that the environmental program had been framed from its inception as religious character education rather than merely as compliance with school cleanliness standards.

"We do not want children to understand religion only in terms of prayer or Qur'an recitation. Protecting the soil, water, plants, and cleanliness is also part of humanity's trust as khalifah. We therefore position the environmental program as part of Islamic values education" (KS).

This perspective was translated into the curriculum by connecting cross-subject competencies to environmental themes. The vice principal for curriculum explained that religious values, scientific knowledge, and project activities were designed to reinforce one another. Students therefore received not only moral messages about cleanliness but also scientific explanations of the ecological consequences of their actions.

"When designing the program, we identify intersections among Islamic Religious Education, science, and school projects. When cleanliness is discussed in Islamic Religious Education, students also learn about waste and pollution in science and then apply this knowledge through environmental management activities" (WKKK).

The Islamic Religious Education teacher constructed ecological piety through tawhīd, khalīfah, amānah, mīzān, and the prohibitions of isrāf and fasād. These concepts were used to evaluate everyday practices such as waste disposal, water use, plant care, and consumption choices. The science teacher reinforced them by explaining ecosystem interdependence and the effects of human activity.

"I explain that damaging the environment is a form of fasād and that excessive water use constitutes isrāf. Students are then asked to identify examples at school and consider corrective action" (GPAI). "Children understand more easily when religious values meet observable evidence. They see waste blocking waterways or plants wilting and then recognize that human actions affect other living beings" (GIPA).

From the students' perspective, the relationship between worship and environmental stewardship became increasingly concrete. PD-1 understood cleanliness as a personal responsibility, whereas PD-2 emphasized responsibility toward other living beings. These perspectives demonstrate an extension of piety from a vertical relationship with God to ecological relationships.

"I used to think cleaning was only a duty-roster assignment. Now I understand that leaving litter also shows a lack of responsibility for the environment God has given us" (PD-1). "Caring for plants is not only about making the school look green. Plants are living beings and provide benefits, so we also have an obligation to protect them" (PD-2).

2. Transforming Values through the Green School Ecosystem

The second theme revealed five interconnected mechanisms of value transformation: curriculum integration, contextual learning, role modeling, habituation, and student participation. The Green School coordinator stated that the program was not treated as an incidental activity. Classroom activities, facility management, allocation of responsibilities, and evaluation of habits were designed as a unified educational ecosystem.

"If Green School consists only of competitions or monthly clean-up drives, children's habits will not change. It must be integrated into learning, duty rosters, waste management, plant care, and the example teachers set every day" (KGS).

Curriculum integration was evident in the use of environmental problems as learning contexts. The Islamic Religious Education teacher used Qur'anic verses and Islamic teachings as a basis for reflection, while the science teacher helped students investigate the causes and consequences of ecological problems. This process led to projects and actions such as waste sorting, organic-material processing, plant care, and resource-conservation campaigns.

"After discussing verses prohibiting destruction, students do not simply finish by writing a summary. They observe the school environment, record instances of wastefulness or minor damage, and formulate actions they can take" (GPAI). "During organic-waste processing, students observe how materials decompose and understand their benefits for the soil. Scientific

knowledge, teamwork, and environmental concern come together in that activity” (GIPA).

Teacher exemplification and consistent rules connected instructional messages to school culture. The principal acknowledged that prohibitions directed at students would lose educational force if teachers continued to waste resources or ignore litter. Teachers and staff were therefore expected to model the conduct required of students.

“Children quickly notice inconsistency among adults. We cannot ask them to conserve water if teachers leave taps running. Role modeling indicates whether a value is genuinely alive within the school” (KS).

Habituation occurred through simple, repeated practices. Students participated in cleaning duties, waste sorting, plant care, single-use plastic reduction, and water and electricity conservation. Habituation did not rely solely on rules: students were invited to propose activities, allocate roles, and evaluate implementation. Their participation made them active agents rather than objects of the program.

“We take turns checking plants and the cleanliness of each group’s area. If there is a problem, we discuss who can address it instead of immediately waiting for a teacher” (PD-3). “I once suggested that my friends bring reusable water bottles because plastic-cup waste accumulated quickly. After we tried it, the amount of plastic waste visibly decreased” (PD-4).

The transformation was not without obstacles. Differences in student discipline, limited instructional time, and dependence on supervision persisted. The program coordinator noted that ecological behavior was easier to sustain when responsibilities were clearly assigned and implementation was evaluated regularly.

“The challenge is maintaining consistency. Some students are already aware, whereas others act only when reminded. Responsibilities are therefore rotated, and activities require continuous reflection” (KGS).

3. Implications for Students' Ecological Knowledge, Attitudes, and Behavior

The third theme showed progressive implications across cognitive, affective, and behavioral domains. Cognitively, students could explain relationships among religious teachings, human actions, and ecological consequences. They no longer described cleanliness only as a religious recommendation but recognized responsibility, wastefulness, damage, and benefits for other living beings.

"I now know that littering does more than make a place dirty. Waste can harm water, soil, and other living beings, so even small actions can cause damage" (PD-1).

Affectively, direct experience cultivated ownership, concern, and discomfort when students witnessed harmful conduct. PD-2 described a shift from following instructions to experiencing responsibility, while PD-3 demonstrated the social confidence to remind peers. This shift matters because ecological piety involves concern for collective behavior, not merely personal compliance.

"When I see that a plant has not been watered, I feel that I should do something even if it is not my group's turn. Previously, I would leave it because I thought it was not my responsibility" (PD-2). "I now have the confidence to remind friends who mix different types of waste. I also have to speak kindly so that they do not feel blamed" (PD-3).

Behavioral changes were evident in waste sorting, material reuse, plastic reduction, plant care, and water and electricity conservation. Some habits extended beyond school, although consistency varied. PD-4 reported bringing a reusable bottle and reducing plastic at home, while teachers regarded unprompted action as the clearest evidence of change.

"I have started bringing my own water bottle and encouraging my family to separate reusable waste. It does not always work yet, but the habit is beginning to carry over into my home" (PD-4). "Our indicator is not merely a cleaner school. More important change occurs when students pick up litter or turn off a tap without being asked and can explain why they did so" (WKK).

The program's implications were neither uniform nor final. Some behaviors continued to depend on supervision, available facilities, and the strength of group culture. The program therefore generated a tendency toward transformation, but the evidence was insufficient to claim that every student had developed firmly established ecological piety.

DISCUSSION

1. Constructing Ecological Piety in Islamic Education

The construction of ecological piety as an extension of spiritual piety demonstrates that Islamic education can integrate human relationships with God, other people, and nature within a single ethical framework. Tawhīd positions nature as part of God's creation, while khalīfah and amānah affirm humanity's responsibility to preserve it. Mīzān establishes balance as an orientation, and the prohibitions of isrāf and fasād provide ethical limits against waste and destruction. This construction accords with Bsoul et al. (2022), who argued that environmental sustainability in Islam is rooted in stewardship, balance, responsibility, and the prohibition of harm. The present findings extend that conceptual analysis by demonstrating an educational pathway through which theological principles become students' language, habits, and moral considerations.

The findings also clarify that transformation from spiritual to ecological piety does not replace spirituality with environmental activism. Rather, it expands the domain in which faith is expressed. Ritual worship remains foundational, while ecological concern becomes one of its social and material consequences. This interpretation avoids a dichotomy between religious and environmental education. It supports Rohman et al.'s (2024) call to integrate ecotheology into Islamic Religious Education while addressing the limitations of approaches confined to curriculum content. In the Green School context, theological values acquire practical meaning when students use them to interpret problems and determine action.

2. Mechanisms of Transformation through the Green School Program

The findings show that value transformation did not result from a single subject or activity but from alignment among curriculum, pedagogy, role modeling, habituation, the physical environment, and participation. Pedagogically, this mechanism represents an internalization process moving from knowledge of values to appreciation and action. Integrating Islamic Religious Education and science enabled students to understand both normative foundations and empirical consequences. Environmental projects provided opportunities to test this knowledge in practice. Role modeling

supplied behavioral examples, habituation strengthened consistency, and participation cultivated ownership of ecological action.

This pattern reinforces Amrullah et al.'s (2025) finding that Islamic education and environmental programs can be integrated through curriculum, spiritual-ecological programs, school culture, and community engagement. The present study further shows that success depends on coherence among these components. A religious message prohibiting wastefulness, for example, loses transformative force if institutional practices remain wasteful or facilities are inadequate. Conversely, green facilities without value-based reflection may produce technical behavior lacking a strong moral foundation. The study's analytical contribution therefore lies in conceptualizing Green School as an ecosystem of internalization rather than a collection of environmental activities.

The emphasis on direct experience, role modeling, and institutional culture also intersects with Cholil and Parker's (2021) finding that religion can provide values and motivation for environmental education. The nature-based school examined here, however, displayed a more explicit interaction among Islamic values, cross-curricular learning, and management of the school environment. Unlike the boarding-school context studied by Fatoni et al. (2025), internalization in a general junior secondary school does not rely primarily on an all-day residential structure. Consistent policies, teacher exemplification, structured activities, and student participation consequently become essential functional equivalents.

3. Program Implications and the Formation of Ecological Behavior

Changes in knowledge, attitudes, and behavior indicate that ecological piety develops gradually. Knowledge enables students to understand relationships among Islamic teachings, human action, and environmental consequences. Experiences of caring for, managing, and observing the environment transform knowledge into concern. When actions are repeated and socially supported, concern begins to take the form of habit. This pattern aligns with Liu et al.'s (2024) mapping of children's pro-environmental behavior across resource conservation, waste management, responsible consumption, and other environmental actions. This study adds a spiritual-motivational dimension: students acted not only for environmental benefit but also because they regarded such action as a moral and religious responsibility.

The findings do not support the deterministic conclusion that participation in Green School automatically produces ecological piety. Variations in discipline, dependence on supervision, limited time, and family

support demonstrate that behavior develops under particular conditions. Change is more likely to endure when values are understood, actions are feasible, facilities are available, adults act consistently, and peers provide support. Program evaluation should therefore assess not only school cleanliness or the number of activities but also students' capacity to explain the moral basis of their actions, take initiative, sustain practices, and transfer habits to their homes and communities.

Theoretically, the study proposes the following transformational sequence: Islamic spiritual values are interpreted as ecological ethics; these ethics are integrated into curriculum and learning experience; experience is reinforced through role modeling, habituation, culture, and participation; and ecological knowledge, concern, and action subsequently emerge. Practically, schools must ensure coherence among Islamic Religious Education, science instruction, facility management, school policy, and the evaluation of student habits. Ecological piety is thus not the outcome of a single activity but an educational achievement requiring coherence across the entire school ecosystem.

CONCLUSION

This study concludes that the Green School program at SMP Citra Alam Gunungkidul represents a transformation of Islamic education by extending spiritual piety into ecological piety. Ecological piety is constructed as an expression of faith grounded in *tawhīd*, *khalifah*, *amānah*, *mīzān*, and the prohibitions of *isrāf* and *fasād*. This transformation occurs through curriculum integration, contextual learning, teacher exemplification, habituation, school environmental management, and active student participation. The program contributed to students' understanding of relationships between Islamic teachings and environmental sustainability, strengthened concern and responsibility, and encouraged ecological practices such as waste sorting, plastic reduction, water and energy conservation, and plant care. Ecological piety therefore does not replace spiritual piety but extends its expression into concrete environmental action.

Theoretically, the study demonstrates that cultivating ecological piety requires consistent connections among religious values, learning experiences, school culture, and ecological action. Practically, schools should position environmental programs as integral components of Islamic education and school management rather than as supplementary or ceremonial activities. Students' behavioral consistency nevertheless remains influenced by adult role models, facilities, supervision, peer culture, and family involvement. Schools should therefore strengthen collaboration among Islamic Religious Education teachers,

other subject teachers, program managers, students, and families, while developing evaluation measures for value comprehension, initiative, consistency, and the application of ecological habits beyond school. Because this was a single-site qualitative case study, the findings are context-bound; further research across varied institutional settings is needed to assess transferability and refine the proposed transformational framework.

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