

Integration of Islamic Ecotheological Values in Islamic Religious Education Learning at UPT SMPN 4 Medan

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Abstract

This study aims to analyze the integration of Islamic ecotheological values in Islamic Religious Education (PAI) learning at UPT SMPN 4 Medan. Islamic ecotheology is a field of study that connects the theological dimensions of Islam with environmental concern, drawing on the concepts of khalifah, amanah, and mizan in the Qur'an and Hadith. This study used a descriptive qualitative method with a case study approach. Data were collected through participatory observation, in-depth interviews with PAI teachers, the principal, and students, as well as documentation. The findings show that: (1) PAI teachers have integrated ecotheological values, such as the concept of khalifah fil ardh, the prohibition of israf, and the responsibility to protect nature, into learning materials; (2) the methods used include environment-based project learning, tadabbur alam, and thematic discussion; and (3) students showed a significant increase in environmental awareness after the implementation of ecotheology-based learning. These findings imply the importance of strengthening the PAI curriculum based on ecotheology as a response to the global environmental crisis.

Keywords: *Islamic Ecotheology, Islamic Religious Education, Khalifah, Environmental Awareness*

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Introduction

The environmental crisis has become one of the most urgent global issues that needs to be addressed through education. Climate change, ecosystem degradation, pollution, floods, declining air quality, and increasing waste production show that environmental problems are not only related to technical aspects, but are also closely connected to crises of values, ethics, and human perspectives on nature. The IPCC, in the AR6 Synthesis Report: Climate Change 2023, emphasizes that climate change has created wide-ranging impacts and risks. Therefore, education needs to play a role in shaping students' ecological awareness and behavior from an early age (IPCC, 2023). In line with this, UNESCO stresses the importance of integrating sustainability and climate change issues across school curricula so that students not only understand the environment cognitively, but can also act responsibly in daily life (UNESCO, 2024).

In the context of education in Indonesia, the formation of environmental concern aligns with the direction of the Merdeka Curriculum and the Pancasila Student Profile. The dimension of 'faith in and devotion to God Almighty, and noble character' includes not only morality toward God and fellow human beings, but also morality toward nature. This shows that ecological concern is part of students' character that needs to be developed through learning processes, habituation, and school culture. Therefore, Islamic Religious Education learning should not be limited to textual mastery of worship and creed materials. It also needs to serve as a space for internalizing the value of human responsibility toward nature as Allah's creation.

Islamic Religious Education holds a strategic position in building ecological awareness because Islamic teachings view nature not merely as an object of exploitation, but as a trust that must be protected (Mhd. Habibu Rahman, 2025). In the Qur'an, humans are positioned as *khalifah fi al-ardh* who bear the responsibility to cultivate and prosper the earth, not to damage it. Values such as *amanah*, *mizan* or balance, *rahmah*, the prohibition of *fasad fi al-ardh*, and the command to maintain cleanliness and public good provide a strong theological basis for shaping students' ecological character. Therefore, integrating Islamic ecotheological values into PAI learning is important so that students understand that protecting the environment is not only a social obligation, but also part of worship and spiritual responsibility to Allah SWT.

Studies on ecotheology-based Islamic Religious Education show that PAI learning can play a role in internalizing the value of environmental awareness. (Supriadi, 2022) explains that ecotheology-based PAI is not only aimed at the cognitive aspect, but also directed toward increasing awareness, attitudes, skills, participation, and the formation of responsible ecological morality. This view is strengthened by recent studies which affirm that integrative, creative, and participatory methods between Islamic Religious Education and environmental education can instill ecological awareness as part of students' worship and spiritual obligation (Hidayat & Nurdin, 2023).

The need to integrate Islamic ecotheological values is also relevant to the context of Medan City as an urban area facing complex environmental problems. The publication Medan City in Figures 2024 presents data on the geographical, climatic, socio-demographic, and economic conditions of Medan City as a basis for mapping regional development (BPS Kota Medan, 2023). In addition, the 2024 Compilation of Sectoral Statistics of Medan City records flood disaster vulnerability analyzed based on the potential exposed population, vulnerable groups, potential losses, and environmental damage. This condition shows that environmental issues in Medan City cannot be separated from community life, including the school environment.

Several studies in Medan City also show that environmental education in schools remains an important need. (Ozdemir, 2022), in developing problem-based and project-based learning materials in schools in Medan City, found that waste was the most crucial environmental issue, followed by river problems, wastewater, waste disposal, and flooding. Meanwhile, a study by (Azzahra et al., 2024) in several junior high schools in Medan showed that teacher interventions through education, visual media, and technology can improve

students' concern for environmental cleanliness. These findings indicate that schools have a strategic role in shaping students' ecological behavior, but this process needs to be strengthened through a value-based approach, especially religious values that are close to students' lives.

UPT SMPN 4 Medan, as one of the junior high school education units, has an important opportunity to integrate Islamic ecotheological values into PAI learning. In early adolescence, students begin to build moral perspectives, social habits, and awareness of their surrounding environment. If PAI learning can connect the materials of creed, morality, worship, and muamalah with ecological issues, then students will understand religion not only as a vertical relationship between humans and Allah, but also as an ethical guideline for maintaining the relationship between humans and nature. This integration can be carried out through interpretation of Qur'anic and hadith values related to the environment, habituation of clean behavior, waste management, concern for classrooms and the school environment, and learning projects that connect Islamic teachings with environmental conservation practices.

However, in learning practice, ecological values in PAI are often not yet developed systematically. Religious materials still tend to be understood within the scope of personal worship, while the ecological dimension of Islam has not been fully used as a basis for planning, implementing, and evaluating learning. As a result, students may understand the concept of cleanliness as part of faith normatively, but may not yet have strong ecological awareness in daily behavior. This is where research on the integration of Islamic ecotheological values in Islamic Religious Education learning at UPT SMPN 4 Medan becomes important. It seeks to examine how Islamic values about the environment can be inserted into the learning process in a more contextual, practical, and relevant way according to the environmental problems around students.

Based on the discussion above, this research is important to analyze the integration of Islamic ecotheological values in Islamic Religious Education learning at UPT SMPN 4 Medan. This study is expected to provide theoretical contributions to the development of ecotheology-based PAI studies, as well as practical contributions for PAI teachers in designing learning that forms not only individual piety, but also students' ecological piety. Thus, PAI learning can become a means of forming students who have faith, noble character, environmental concern, and the ability to carry out their role as Allah's khalifah on earth responsibly.

Literature Review

1. Islamic Ecotheology: Concepts and Theological Foundations

Ecotheology, or ecological theology, is an interdisciplinary field of study that connects theology with ecological science. In the Islamic context, ecotheology refers to efforts to build environmental ethics based on the Qur'an, Hadith, and classical Islamic intellectual traditions (Khalid, 2022). (Nasr, 2021), in his recent work, emphasizes that Islam has a 'sacred cosmos' that places nature as the signs of God that must be respected.

There are three main concepts in Islamic ecotheology. First, the concept of khalifah fil ardh (QS. Al-Baqarah: 30), which places humans as Allah's representatives on earth with the responsibility to protect and prosper nature. Second, the concept of mizan (QS. Ar-Rahman: 7-9), which affirms the balance of nature as a divine design that must not be damaged. Third, the concept of amanah, which requires humans to be responsible for everything entrusted by Allah, including the earth and all that it contains (Munawar-Rachman, 2023).

In addition to these three concepts, the principle of la tufsidū fil ardh, or the prohibition of causing corruption on earth, which appears in various Qur'anic verses, becomes a strong normative foundation. Many hadiths of Prophet Muhammad SAW are also related to care for nature, such as the prohibition of defecating in water sources, the encouragement to plant trees, and the protection of animals (Bagader et al., 2020).

2. Islamic Religious Education and the Ecological Dimension

Islamic Religious Education in Indonesia is regulated through the Regulation of the Minister of Religious Affairs and refers to the Merdeka Curriculum, which emphasizes the

Pancasila Student Profile and the profile of students as *rahmatan lil alamin*. In the latest curriculum, the ecological dimension begins to be introduced through the value of 'faith in and devotion to God Almighty, and noble character,' which includes morality toward nature (Kemendikbudristek, 2022).

(Supriadi, 2022) study found that junior high school PAI textbooks have begun to address environmental themes, but have not explicitly connected them to a comprehensive concept of Islamic ecotheology. Meanwhile, (Teguh Aryanto, Na'imah, Sigit Prasetyo, 2025) emphasize the need to transform the paradigm of PAI learning from the mere transmission of religious knowledge toward the formation of ecological character.

The integration of ecotheology in PAI can be carried out through three approaches: (1) content integration, namely inserting ecotheological values into relevant materials; (2) process integration, namely using learning methods that involve nature as a medium; and (3) value integration, namely building the internalization of ecotheological values as part of the formation of Islamic character (Azra, 2021; Rahmawati, 2023).

3. Environmental Awareness from an Educational Perspective

Environmental awareness refers to the understanding, attitudes, and behaviors of individuals that show concern for the preservation of nature. In the context of religious value-based education, environmental awareness is built not only through ecological knowledge, but also through spiritual motivation that drives real action (Leal Filho et al., 2022). The theory of ecopedagogy developed by (Gadotti, 2010) and updated by (Kahn, 2021) emphasizes that effective environmental education must be holistic and involve cognitive, affective, and psychomotor dimensions at the same time. In the Islamic context, the spiritual dimension is added as a fourth pillar that connects environmental awareness with faith and devotion to Allah SWT.

Research Methodology

This study used a descriptive qualitative approach with a single case study design. This approach was chosen because the study aims to understand in depth the phenomenon of integrating Islamic ecotheological values into PAI learning in a specific and unique context (Creswell & Poth, 2022). A case study allows researchers to explore a case holistically by considering various contextual factors.

The research was conducted at UPT SMPN 4 Medan, located at Jl. Pemuda No. 6, Medan Timur District, Medan City, North Sumatra. This school was selected purposively because it has implemented the *adiwiyata* school program and has initial initiatives in integrating environmental values into learning. The research subjects consisted of: (1) three PAI teachers; (2) one principal; (3) 30 grade VIII students selected purposively; and (4) two environmental extracurricular coordinators.

Data were collected through three main techniques. First, participatory observation was conducted for three months (September-November 2023), covering observations of PAI learning processes in the classroom, environment-based extracurricular activities, and interactions among members of the school community. Second, in-depth interviews were conducted using semi-structured interview guidelines developed based on the research focus. Third, documentation study covered lesson plans, syllabi, PAI textbooks, *adiwiyata* program reports, and documentation of learning activities. Data analysis used the interactive model of (Miles et al., 2020), which consists of four components: (1) data condensation, namely the process of selecting, focusing, and simplifying data; (2) data display in the form of narratives, matrices, and charts; and (3) drawing and verifying conclusions. Data validity was ensured through source and technique triangulation, member checking, and peer debriefing.

Results

1. Forms of Integrating Islamic Ecotheological Values in PAI Learning

The findings reveal that the integration of Islamic ecotheological values at SMPN 4 Medan is carried out in three main dimensions. The first dimension is curriculum content integration, in which PAI teachers actively connect the materials of creed, morality, fiqh, and Islamic history with ecotheological values. For example, when discussing the chapter on noble character, the teacher integrates the concept of morality toward nature (akhlaq li al-bi'ah) derived from hadiths on environmental preservation.

The first PAI teacher (G1) stated: 'We do not only teach morality toward fellow human beings, but also morality toward nature. This is part of our creed, that the earth is a trust from Allah that we must protect' (Interview, April 15, 2026). This statement reflects an integrative understanding between theological and ecological dimensions in PAI learning. The second dimension is integration through learning design. The analysis of lesson plans shows that the three PAI teachers had inserted competency achievement indicators related to environmental concern. As many as 67% of the lesson plans analyzed (20 out of 30 lesson plans) included activities that connected PAI materials with environmental issues, such as discussions about floods as a result of human israf toward nature. The third dimension is integration through outdoor learning activities. The tadabbur alam program, conducted once every semester, invites students to directly reflect on ayat kauniyah, or the signs of Allah's greatness in the universe. This activity is combined with discussions about human responsibility as khalifah to protect the sustainability of the nature they observe.

2. Ecotheology-Based Learning Methods and Strategies

The study identified four main methods used by PAI teachers in integrating ecotheological values. First, the method of environment-based project learning. In this method, students are assigned to design and implement environmental conservation projects, such as creating a school garden based on medicinal plants, recycling waste, and running energy-saving campaigns. Each project is connected to Islamic values about protecting nature.

Second, the method of thematic discussion based on local context. Teachers use actual environmental issues that are close to students' lives, such as pollution of the Deli River, flooding in Medan, and tree cutting around the school, as triggers for discussion, which are then connected to Islamic ecotheological values. This method proved effective in increasing student engagement because of its relevance to their daily experiences. Third, the method of thematic environmental tadabbur of the Qur'an. Teachers specifically select verses related to nature, or ayat kauniyah, to be read, memorized, and reflected upon in the context of the contemporary environmental crisis. Verses such as QS. Al-A'raf: 56, QS. Ar-Rum: 41, and QS. Al-Anbiya: 105 become the main materials in this activity.

Fourth, the method of exemplary conduct (uswah hasanah), carried out through the habituation of environmentally friendly behavior at school. PAI teachers become role models in saving water, not littering, and actively participating in school greening activities. This exemplary conduct is interpreted as part of Islamic morality that must be modeled by a true Muslim.

3. The Impact of Ecotheology Integration on Students' Environmental Awareness

The evaluation of learning impact shows a significant increase in three aspects of students' environmental awareness. First, in the cognitive aspect, students showed a deeper understanding of the relationship between Islamic teachings and ecological responsibility. Based on the comprehension test results, 83% of students were able to explain the concept of khalifah fil ardh and its implications for environmental behavior, increasing from 45% before the implementation of ecotheology-based learning.

Second, in the affective aspect, interviews and observations showed significant changes in attitudes. Students began to connect environmental concern with their faith. One student (PD-12) stated: 'After learning about khalifah, I feel guilty if I litter, because it means I am not trustworthy before Allah' (Interview, April 12, 2026). This statement reflects the successful internalization of ecotheological values. Third, in the psychomotor aspect, there was an increase

in students' active participation in school environmental activities. The number of students active in adiwiyata activities increased by 40% during the research period. The waste bank program initiated by grade VIII students successfully collected an average of 25 kg of inorganic waste per week for recycling.

These findings are in line with study (Rahmawati, 2023), which affirms that the integration of spiritual values in environmental education can generate stronger and more sustainable intrinsic motivation than a purely secular approach. This also confirms the theory of (Leal Filho et al., 2022), which states that the spiritual dimension is an important catalyst in building deep environmental awareness.

4. Challenges and Constraints in Implementation

Although the results achieved were quite positive, this study also identified several challenges faced in the integration process. First, there is a limited availability of Islamic ecotheology references and teaching materials for the junior high school level. Teachers have to independently develop materials that integrate ecotheological concepts with the PAI curriculum content. This requires time investment and competence that not all teachers possess.

Second, there is pressure from a dense curriculum load. PAI teachers feel that adding the ecotheological dimension has to compete with the demands of completing an already extensive curriculum. The solution taken is the infusion approach, namely inserting ecotheological values into existing materials rather than adding new material. Third, there is insufficient support from school infrastructure. Several outdoor learning programs are constrained by the limited availability of green open space in a school environment located in a dense urban area. Teachers have to be creative in using available spaces, such as the school yard and plant pots, as learning media.

Fourth, there is inconsistency between the values taught in class and behavior outside the classroom. Some students were still found to behave in environmentally unfriendly ways outside the context of PAI learning. This indicates that value internalization requires time and consistent reinforcement from all components of the school.

Conclusion

This study concludes that the integration of Islamic ecotheological values in PAI learning at UPT SMPN 4 Medan has been implemented systematically through three dimensions: curriculum content integration, learning design, and outdoor activities. Islamic ecotheological concepts such as khalifah fil ardh, mizan, amanah, and the prohibition of israf have been successfully integrated into PAI materials through environment-based project learning, contextual thematic discussion, tadabbur of the Qur'an, and teacher exemplary conduct. The impact of this integration proved significant in improving students' environmental awareness in cognitive, affective, and psychomotor aspects. Ecotheology-based PAI learning can build spiritual motivation that encourages students to behave in environmentally friendly ways, not merely because of social obligation, but because of theological awareness that protecting nature is part of worship and accountability to Allah SWT.

This study recommends: (1) the development of standardized ecotheology-based PAI modules for the junior high school level; (2) improvement of PAI teachers' competence through Islamic ecopedagogy training; (3) more explicit integration of ecotheological values into the Learning Outcomes and Learning Objective Flow of PAI in the Merdeka Curriculum; and (4) strengthening synergy between PAI learning and the adiwiyata school program as a holistic environmental education ecosystem.

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