

Integration of the Concepts of *Khalifah* and *Amanah* in Environmental Education (PLH) in Madrasah Ibtidaiyah: An Islamic Eco-Theological Review

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Abstract

The growing environmental crisis demands an educational approach that integrates ecological understanding with ethical and spiritual foundations. In the context of Madrasah Ibtidaiyah (MI), the concepts of *Khalifah* (human stewardship of the earth) and *Amanah* (moral responsibility) in Islamic eco-theology offer a rich framework for strengthening students' environmental awareness. This study aims to analyze how these two theological principles can be integrated into Environmental Education (PLH) at the MI level. Using a qualitative literature review method, this study synthesizes scientific articles, classical-contemporary Islamic literature, and eco-theological studies in education sourced from reputable journals (2020-2025) analyzed to identify conceptual gaps and existing integration practices. The results of the analysis show that the concept of *Khalifah* positions students as active guardians of nature, while the principle of *Amanah* fosters an attitude of ethical responsibility towards environmental sustainability. The integration of Islamic eco-theology in Environmental Education has been proven to be in line with the competencies of Environmental Education in Madrasah Ibtidaiyah and is able to enrich the learning process through the strengthening of ecological literacy connected to spiritual awareness. This study concludes that the application of the principles of *Khalifah* and *Amanah* in PLH not only broadens the pedagogical dimension, but also creates a more holistic, contextual, and transformative learning experience for MI students. In practical terms, it is recommended that the Ministry of Religious Affairs consider adopting this Islamic Eco-Theology framework in the PLH curriculum policy at MI, and further research is needed to conduct empirical testing and validation of this Conceptual Integration Model.

Keywords: Islamic Eco-Theology, *Khalifah*, *Amanah*, Environmental Education (PLH), Madrasah Ibtidaiyah (MI)

Introduction

Global environmental crises, such as climate change, loss of biodiversity, and pollution, are urgent social issues that demand serious attention from all levels of society, including educational institutions (Albar, 2023). In Indonesia, environmental damage is often exacerbated by a lack of awareness and deep ecological ethics, especially at the grassroots level, which requires transformative solutions through education. Conventional Environmental Education alone has proven to be insufficient in instilling a sustainable sense of responsibility because it is often detached from local values and spirituality (Lutfi et al., 2025). Research shows that integrating religious values, particularly Islam, into Environmental Education can significantly strengthen students' ecological awareness and character. This integration has been shown to increase environmental responsibility, build consistent pro-environmental behavior, and instill ecological ethics rooted in religious teachings, such as the concepts of Khalifah (human leadership over nature) and fiqh al-bi'ah (environmental law in Islam) (Amrullah et al., 2025). Therefore, there is a crucial need to integrate strong religious values, in this case Islam, into the Environmental Education Learning curriculum as an effort to shape students' ecological character and ethics from an early age.

To bridge the gap in conventional Environmental Education Learning, Islamic Eco-Theology offers a solid conceptual framework by placing humans in a central position, namely as Khalifah (God's leader/representative) and holders of Amanah (trust/responsibility) for the universe (Alim & Hidayat, 2024). The concepts of Khalifah and Amanah are not only theological teachings but also have practical implications in the form of a moral obligation to protect and preserve the environment, not just exploit it (Syukri, Sulaiman, et al., 2024). The integration of these concepts can provide a much stronger spiritual foundation for pro-environmental actions than a purely secular approach. Academic research has identified that the concept of Khalifah implies a non-anthropocentric relationship between humans and nature, while Amanah is defined as a contract between humans and God to maintain the balance of the ecosystem (mizan) (Rakhmat, 2022). This literature indicates that the Islamic Eco-Theology paradigm has great potential to provide an effective normative framework for formulating PLH objectives and materials relevant to madrasahs.

This study aims to analyze, synthesize, and formulate a conceptual framework for integrating the concepts of Khalifah and Amanah in the material and practice of Environmental Education (PLH) in Madrasah Ibtidaiyah through a Systematic Literature Review approach. Because this study is a literature review, the focus is on integrating separate findings from research on eco-theology, basic education, and madrasah curriculum. The goal is not to produce a product, but to construct a new coherent theoretical/conceptual framework from existing sources. Literature review research is needed to identify patterns, gaps, and consensus among different studies on the application of religious values in environmental education, especially at the MI level. The results of this study are expected to present a structured conceptual framework for MI teachers and curriculum developers in developing Eco-Islamic Theology-based PLH.

The researchers argue that the integrative conceptual framework resulting from this literature review will demonstrate a strong theoretical consensus regarding the effectiveness of the concepts of Khalifah and Amanah as pedagogical foundations for environmental education in MI. Through a synthesis of the literature, we can assert that the concept of Khalifah provides a foundation for action/obligation (what must be done), and Amanah provides a foundation for motivation/responsibility (why it must be done), which is theoretically superior to a purely secular approach to environmental ethics. The findings of the analyzed literature will support this postulate. An in-depth analysis of the studies. The convergence of findings supports a paradigm shift from exploitation to stewardship mediated by a strong understanding of these two key concepts. The main argument of this study is that a synthesis of the literature will result in a theoretically and pedagogically valid conceptual model of EL for Madrasah Ibtidaiyah.

Recent studies have shown a significant increase in research linking Environmental Education to the framework of Islamic Eco-Theology, especially after 2020, in response to the failure of conventional Environmental Education to instill moral agency. Based on an analysis of the latest literature, there are three main trends in research related to the integration of the concepts of Khalifah and Amanah into environmental education. These trends move from conceptual-theological analysis to practical implementation studies. (Alim & Hidayat, 2024). This mapping confirms that although the topic of integrating Islamic theology and the environment is already widespread, there are specific patterns that divide the focus of research, which will be further elaborated.

The first trend is thematic and conceptual studies, focusing on reinterpreting the concepts of Khalifah and Amanah from a contemporary Islamic Eco-Theology perspective (Taufikin, 2025). Research in this category uses hermeneutical and qualitative-descriptive approaches to redefine the ethical implications of these concepts in the context of the modern environmental crisis. They seek strong normative foundations from the texts of the Qur'an and Hadith. For example, Rakhmat (2022) study explores in depth that Khalifah should be understood as non-exploitative stewardship, while Amanah is translated as a moral cosmology that demands balance (mizan). This research usually produces a theoretical framework, not a practical implementation model. The main contribution of this pattern is the provision of a strong theological foundation for every Islamic-based PLH program.

The second trend is case studies of implementation that focus on how environmental concepts are presented in Islamic Religious Education (PAI) subjects or the madrasah curriculum in general (Arjunnajata et al., 2024). This research uses a qualitative-evaluative approach to analyze curriculum documents, syllabi, and PAI teaching practices to see the extent to which environmental issues are explicitly and systematically integrated. Research by Rahmat et al. (2025) found that although the concept of Khalifah is often mentioned in PAI material in MI, its implementation in the context of the environment tends to be partial and incidental, emphasizing personal hygiene (thaharah) rather than ecosystem conservation. The thematic focus is on evaluating integration, not developing new models. This pattern indicates a gap in implementation between the idealism of Islamic Eco-Theology and the practice of PAI teaching in the field.

The third trend involves the development of more operational learning models or designs for PLH, although the focus is often not specific to the elementary level (MI) and the concept of Amanah in depth. This research often uses a Research and Development (R&D) or Design-Based Research approach, with an orientation towards creating Islamic-based learning modules, media, or strategies that can increase environmental awareness. For example, a study developed a Project-Based Learning (PBL) model based on Islamic values for secondary school students (Alim & Hidayat, 2024). However, the development of this model more commonly uses the terms “Islamic values” or “Islamic ethics” without deeply examining the specific effectiveness of the dictums of Khalifah and Amanah at the Madrasah Ibtidaiyah level. This pattern results in applicable learning products that do not fully address the conceptual specificity and age level that are the focus of this study.

Although there are three research trends (conceptual, curriculum evaluation, and general model development), collectively, the existing literature has not provided an integrated conceptual framework resulting from a systematic and specific literature synthesis for the Madrasah Ibtidaiyah level. Previous studies are fragmented: some discuss theology without education, some discuss education without specifying Khalifah and Amanah, and some are case-by-case evaluations (Zabidi et al., 2021). There has been no synthesis research that specifically develops a complete pedagogical conceptual model from the perspective of Islamic Eco-Theology, which is based on Amanah as a key variable of sense of responsibility at the MI level. An analysis of meta-synthesis or systematic literature reviews in 2020–2025 shows that the focus is still on general mapping and has not yet produced a structured conceptual prototype that is ready to be tested empirically (Alim & Hidayat, 2024). This gap creates a need for a synthetic literature review to construct a conceptual framework that has so far only been scattered across various studies.

Based on the shortcomings of previous studies, this research takes a new direction by focusing on formulating a conceptual framework for the integration of Khalifah and Amanah in PLH through the Systematic Literature Review (SLR) method. The SLR method allows researchers to identify, critically assess, and synthesize all relevant empirical and theoretical studies to produce answers to specific research questions, namely How can the concepts of Khalifah and Amanah be pedagogically integrated in MI? This research will produce a Pedagogical Conceptual Model that explains the learning objectives, materials, and methods appropriate for teaching Khalifah (as a conservation task) and Amanah (as awareness of responsibility), with reference to the best findings in the relevant literature (Arsyad, 2025). Thus, this study aims to present a theoretical contribution (novelty) in the form of an Islamic Eco-Theology-based PLH Conceptual Model specifically for MI, filling the gap in synthesis research in this field.

Methods

Research Design

This study uses a Systematic Literature Review (SLR) design. SLR was chosen to comprehensively identify, critically evaluate, and synthesize all relevant scientific evidence regarding the integration of the concepts of Khalifah and Amanah in Environmental Education in the context of Islamic education (Madrasah Ibtidaiyah). This design ensures that the research findings are based on structured

data from existing literature, rather than field observations, thereby producing a theoretically valid conceptual framework (Synder, 2019).

Participants

Participants in this study refer to relevant articles and scientific journals, not human individuals. The selection criteria for participants (articles) focused on academic journals published in Indonesian or English, which discuss Islamic Eco-Theology, the concepts of Khalifah and Amanah, Environmental Education (PLH), and/or Islamic/madrasah education curricula. The selected journals are limited to those published between 2020 and 2025 to ensure the relevance of the findings.

Research Procedures

This research procedure follows four main stages in SLR, namely: Planning, Data Collection (Searching), Screening and Critical Appraisal, and Synthesis and Reporting. These stages are designed to minimize bias and ensure a transparent and replicable process. The entire procedure is governed by a search protocol that is established at the outset.

Data Collection Technique(s)

Data collection was conducted through a systematic search of scientific articles published between 2020 and 2025 from global and national academic databases. The main databases used included Scopus, Web of Science, ScienceDirect, Sinta (National Journal Indexing System), and Google Scholar. The search was conducted using a combination of keywords covering three main domains: Theological Concepts (Khalifah, Amanah, Eco-Theology), Education (PLH, Madrasah Ibtidaiyah, Curriculum), and Relationships (Integration, Models). The articles found then underwent a three-stage screening process: elimination of duplicates, screening of titles and abstracts based on relevance to the research questions, and full-text screening.

Data Analysis Technique

The data analysis technique used was Synthetic Thematic Analysis, which was conducted qualitatively. The analysis process began with open coding of qualitative data extracted from selected articles. The purpose of coding was to break down key findings and arguments from the literature into smaller units of information ('Definition of Khalifah', 'Implications of Amanah on MI Students'). Next, the codes were organized and grouped into relevant main themes, such as 'Theological Foundations', 'Curriculum Implementation Gaps', and 'Proposed Pedagogical Models'. Finally, these main themes are synthesized and processed into a Qualitative Narrative Synthesis to formulate the Conceptual Framework of the Khalifah and Amanah Integration Model, which is the main objective of this study (Synder, 2019).

Results

Khalifah and Amanah in Islamic Eco-Theology

The following table shows the results of research on caliphate and trust in Islamic eco-theology:

Table 1 Khalifah and Amanah in Islamic Eco-Theology

No	Source	Research Focus	Key Founding	Implications for Eco-Theology
1	(Rohman, 2024)	Integration of eco-theology in Islamic education	The values of Khalifah & amanah increase students' ecological awareness	This concept is effective as a basis for environmental education
2	(Syukri, Sulaiman, et al., 2024)	Environmental practices in Islamic boarding schools	Tree planting, waste management, and green curriculum	Islamic boarding schools are able to apply the values of Khalifah & amanah in practice
3	(Rahmat et al., 2025)	Islamic theological interpretations of the ecological crisis	Khalifah & amanah play a role in the ethics of environmental damage mitigation	Islamic teachings can be used as the basis for ecological policy
4	(Hidayatullo h, 2024)	Religious moderation & ecology	Amanah is considered part of the moral ethics of resource use	Strengthening the normative basis for environmental governance

A review of the literature shows that the concept of Khalifah is the most fundamental ecological principle in Islamic ecotheology, as it positions humans as stewards of the earth who are obliged to maintain environmental harmony. This principle is important because it provides an ethical framework that humans are not the absolute owners of nature, but rather guardians who are bound by a moral imperative to protect God's creation. Rohman's (2024) findings show that when the value of Khalifah is integrated into Islamic education, there is a significant increase in students' awareness of their role as guardians of the environment. These results confirm that the value of Khalifah is not only theological but also has transformational power in shaping the ecological behavior of society.

Furthermore, the analysis shows that the concept of Amanah (trust) serves as a moral foundation that guides humans to use natural resources responsibly and not excessively. This concept reinforces the awareness that nature is a gift from God that must be managed wisely for current and future generations. Hidayatullo h's (2024) research reveals that understanding amanah can strengthen the ethics of resource use in various educational institutions and religious communities, especially in preventing exploitative behavior that harms the ecosystem. Therefore, amanah is an important element that complements the role of Khalifah through strengthening moral commitment in ecological actions.

The research findings also show that the application of the values of Khalifah and amanah does not stop at the conceptual level, but has been realized in various community-based practices. This is important because it shows that Islamic ecotheology is not just a normative idea, but a model of social action that can be applied in everyday life. The study by Syukri et al. (2024) in Islamic boarding schools, for example, documents conservation practices such as tree planting, integrated waste management, and green curricula, all of which are rooted in the internalization of these values. This evidence confirms that the integration of the concepts of Khalifah and amanah can produce collective changes that have a direct impact on environmental sustainability.

Overall, the results of the literature synthesis show that the values of Khalifah and amanah in Islamic ecotheology have strong relevance to modern ecological challenges. This relevance is increasingly important because both concepts offer a spiritual and ethical basis that can strengthen religious-based environmental policies

and movements. The research by Rahmat et al. (2025) reinforces this finding by showing that the Islamic ecotheology framework is effective in formulating ethics for environmental crisis mitigation in the era of climate change. Thus, it can be concluded that the roles of Khalifah and amanah not only enrich theological discourse but also make a real contribution to sustainable environmental conservation efforts.

Environmental Education (PLH) in Madrasah Ibtidaiyah

Table 2 Enviromental Education (PLH) in Madrasah Ibtidaiyah

No.	Source	Key Findings of Research	Focus of Result	Impact on Students
1	(Annur, 2022)	Implementation of PLH through green school habits	Integration of the Adiwiyata program, clean habits, planting activities	Improving ecological discipline and environmental awareness
2	(Fitriah, 2024)	Environmental Learning Model in MI learning	Direct environment-based learning (observation, practice)	Improving science process skills and curiosity
3	(Indahwati, 2023)	Adiwiyata Program for environmental awareness character	Character building through school culture and ecological activities	Students become more caring and active in green activities
4	(Nugroho et al., 2022)	The concept of PLH in MI curriculum	Integration of environmental values in thematic materials and activities	Improving environmental literacy and responsible attitudes
5	(Maharani, 2022)	Project-Based Learning for Environmental Awareness	Recycling projects, mini gardens, and exploration of the surrounding environment	Training students to think critically and responsibly about waste
6	(Salama et al., 2025)	MI-based Green School Program	Green space planning, waste management systems, environmental literacy	Significantly increasing students' ecological awareness

The findings in Table 2 show that the implementation of PLH in Madrasah Ibtidaiyah is highly dependent on a school culture that supports ecological behavior. This is important because environmental habits serve as a consistent learning medium and shape character through direct experience, not just theory. (Annur, 2022) found that habits such as maintaining classroom cleanliness, caring for plants, and implementing the Adiwiyata program successfully improved students' ecological discipline and sense of responsibility towards the environment. These findings indicate that a green school culture is the main foundation for the success of PLH in madrasahs.

Environment-based learning has been proven effective in improving scientific skills and meaningful learning experiences for MI students. Elementary school students learn more effectively through concrete experiences that allow them to directly observe natural phenomena. Fitriah's (2024) study shows that the Environmental Learning model through field observation activities, school environment exploration, and simple experiments can significantly improve students' science process skills and curiosity. Thus, learning that is directly connected to the surrounding environment is an important component in the implementation of Environmental Education.

Strengthening environmental awareness is one of the important outcomes of the implementation of Environmental Education in Madrasah Ibtidaiyah. Ecological character education is essential to foster a sense of care, empathy, and long-term responsibility for nature conservation. Indahwati's (2023) research shows that the Adiwiyata program and ecological activities at MI Miftahul Ulum, such as waste banks and tree planting activities, have succeeded in consistently fostering environmentally conscious character in students. This proves that Environmental Education not only increases knowledge but also shapes positive character relevant to environmental issues.

An Environmental Education program integrated with the curriculum and project activities has proven to have a tangible ecological impact. This integration is important because it connects theory with direct action, allowing students to see the impact of their ecological behavior. Nugroho et al. (2022) emphasize that the integration of Environmental Education into thematic material improves students' environmental literacy, while Maharani's (2022) research shows that the Project-Based Learning model through recycling and mini-garden activities strengthens students' sense of responsibility towards waste. Additionally, the study by Salama et al. (2025) proves that the Green School program at MI can significantly increase ecological awareness. The combination of curriculum, projects, and school programs has been proven to provide comprehensive and sustainable environmental education outcomes.

Integration of the Concepts of Khalifah and Amanah with Environmental Education (PLH) in Madrasah Ibtidaiyah (MI)

Table 3 Integration of the Concepts of Khalifah and Amanah with Environmental Education (PLH) in Madrasah Ibtidaiyah (MI)

No.	Source	Focus of Integration	Form of Implementation	Impact on MI Students
1	(Annur & Sari, 2022)	The value of Khalifah as the basis of environmental ethics	Habitualizing cleanliness, caring for plants, and environmentally friendly activities	Increasing ecological awareness and responsibility as “guardians of the earth”
2	(Abdalla, 2021); (Indahwati, 2023)	The value of Amanah as the responsibility to protect the environment	Water conservation activities, waste sorting, caring for the school environment, and teacher role modeling	Shaping moral-spiritual attitudes that the environment is a gift from Allah
3	(Fitriah, 2024)	Integration of religious values with Environmental Learning	Nature observation, hygiene practices, mini gardens, and exploration of the surrounding environment	Improving science process skills while strengthening ecological responsibility
4	(Salama et al., 2025)	Integration of Khalifah–amanah values with green school policies	Green School program, waste management, green spaces, environmental literacy	Significant increase in environmental awareness and green behavior becoming part of school culture
5	(Nugroho et al., 2022)	Integration of PLH into MI curriculum	Religious values incorporated into learning themes and environmental projects	Increased environmental literacy as religious values become the basis for practical application

Based on Table 3 number 1, research Annur & Sari (2022) confirms that the value of Khalifah is the foundation of environmental ethics in learning at Madrasah

Ibtidaiyah. This integration is evident through the habit of maintaining cleanliness, caring for plants, and involving students in daily environmentally friendly activities. Both studies show that simple practices such as sweeping the classroom, watering plants, or cleaning the yard are effective means of instilling ecological awareness in elementary school-aged children. As a result, students show an increased sense of responsibility as guardians of the earth, as mandated by the caliphate in Islam. These findings are in line with Islamic environmental ethics, which emphasize the harmonious relationship between humans and nature as a form of servitude to Allah Annur & Sari (2022).

Furthermore, table 3 number 2 describes the studies Abdalla (2021) dan Indahwati (2023) which highlight the value of trustworthiness as the basis for environmentally friendly behavior. The integration of the value of trustworthiness is manifested in various activities such as saving water, sorting waste, and maintaining school cleanliness consistently with the guidance and example of teachers. These studies show that when students understand the environment as a gift from God, they are more careful and responsible in using it. Teacher role modeling is a key factor because it shapes students' habits and moral-spiritual attitudes in protecting the environment (Abdalla, 2021; Indahwati, 2023).

Based on table 3 number 3, the research explains that the integration of religious values with environmental learning enhances students' learning experiences through nature observation, hygiene practices, mini gardens, and exploration of the surrounding environment (Fitriah, 2024). These activities not only reinforce Islamic values about caring for the earth but also develop scientific process skills such as observing, classifying, and drawing conclusions. Fitriah's (2024) findings show that religion-based environmental learning has a dual effect: it improves science competence while shaping ecological responsibility in MI-aged children.

Based on table 3 numbers 4 and 5, the research by Salama et al. (2025) and Nugroho et al. (2022) shows that the integration of Khalifah and Amanah values does not only occur at the classroom activity level, but also at the school policy and curriculum levels. Salama et al. (2025) emphasize the implementation of Green Schools through waste management, the provision of green spaces, and the strengthening of environmental literacy as concrete forms of integrating religious values and environmental education. On the other hand, Nugroho et al. (2022) found that incorporating religious values into learning themes and environmental projects effectively improves students' environmental literacy. Both studies show that when religious values form the basis of policy and curriculum, environmentally friendly behavior is more easily integrated into the overall school culture.

Discussion

Khalifah and Amanah in Islamic Eco-Theology

Research findings indicate that the concepts of caliphate and trust play a fundamental role in developing environmental ethics rooted in Islamic teachings. Essentially, these two concepts provide a spiritual framework that emphasizes that humans are not positioned as absolute rulers, but as guardians bound by moral responsibility. The results of a study Rohman et al. (2024), for example, show that incorporating the value of caliphate into learning not only enriches religious material but also shapes students' views of nature as a space of trust that must be protected. In

other words, this theological concept has proven to have transformative power, changing understanding into real and measurable ecological awareness.

The discussion of amanah broadens the meaning of environmental ethics by emphasizing personal and collective responsibility in maintaining the sustainability of resources. Amanah raises awareness that every human action towards nature has moral consequences. Hidayatulloh's (2024) explains that internalizing these values can improve resource use patterns whether in education, family, or religious communities through simple practices such as conserving water, not littering, or managing the environment more wisely. This shows that amanah functions as an ethical brake that prevents reckless behavior that damages ecosystems.

The results of the study also confirm that the values of Khalifah and amanah do not merely remain normative concepts, but have been translated into more concrete social practices. Research Syukricet al. (2024) shows how Islamic boarding schools are able to apply these concepts through activities such as tree planting, integrated waste management, and the implementation of an environment-based curriculum. These practices show that Islamic eco-theology can be the basis for concrete actions that involve all members of the institution in a sustainable manner. When theological values are translated into consistent daily activities, ecological habits not only shape individual character but also change the culture of the institution to be more environmentally friendly.

Overall, this discussion shows that the concepts of Khalifah and amanah have strong relevance in responding to the current ecological crisis. The views of Rahmat et al. (2025) reinforce these findings by showing that these two concepts can be used as a basis for formulating an ethic of environmental damage mitigation in the era of climate change. Thus, Islamic eco-theology not only provides spiritual understanding but also offers practical ethical solutions for more sustainable environmental management. The integration of theological values and ecological practices demonstrates that Islamic teachings have great potential to strengthen the environmental movement, both in the context of education and public policy.

Findings from various studies show that the success of Environmental Education in Madrasah Ibtidaiyah is greatly influenced by a school culture that consistently fosters ecological behavior. A disciplined and orderly learning environment provides opportunities for students to experience environmental conservation practices firsthand. This is in line with the findings Annur (2022), which show that the habits of keeping classrooms clean, caring for plants, and implementing the Adiwiyata program can strengthen students' ecological discipline. These findings confirm that school culture is not only a supporting factor but also the main foundation in shaping environmental awareness in students from an early age.

In addition to school culture, learning approaches that provide space for students to interact directly with the natural environment have been proven to provide more meaningful learning experiences. Elementary school-aged children tend to understand concepts more easily when involved in real activities that trigger their curiosity. Fitriah proved that the Environmental Learning model through field observation, exploration of the surrounding environment, and simple practices can significantly improve students' science process skills (Fitriah, 2024). Thus, using the environment as a learning resource not only enriches the learning experience but also strengthens students' emotional connection with nature.

Ecological character education has also emerged as an important focus in the implementation of Environmental Education in MI. Environmental awareness cannot be taught solely through theory; it needs to be internalized through students' daily activities. Indahwati's research confirms that the Adiwiyata program and routine activities such as waste banks, school gardens, and tree planting actions are able to consistently shape environmentally conscious character (Indahwati, 2023). When students are directly involved in ecological activities, they not only understand the importance of protecting the environment, but also feel a moral responsibility to be actively involved in conservation efforts.

The integration of PLH into the curriculum and project-based activities has been proven to strengthen the overall impact of learning. This is important because it connects theory with real practice, allowing students to see the consequences of ecological behavior in the context of everyday life. Nugroho shows that incorporating environmental values into thematic material increases students' ecological literacy) (Nugroho et al., 2022). Similarly, Pusvita found that recycling projects and mini gardens train students to think critically and take responsibility for the waste they produce (Maharani, 2022). In addition, a study Salama et al. (2025) shows that the Green School program in MI environments can significantly increase ecological awareness through green space planning and structured waste management. The collaboration between the curriculum, project activities, and green school policies forms a more comprehensive and sustainable PLH ecosystem.

Integration of the Concepts of Khalifah and Amanah with Environmental Education (PLH) in Madrasah Ibtidaiyah

The results of the literature synthesis in the first table show that the value of Khalifah is the most frequently used starting point for Islamic elementary schools in instilling ecological awareness. Research shows that small habits, such as keeping the classroom clean, watering plants, and participating in environmentally friendly activities, are effective in shaping ecological sensitivity from an early age (Annur, 2022). MI-aged children tend to understand religious values through concrete experiences, so these simple activities serve as a space for them to practice understanding their role as guardians of the earth. Thus, the value of Khalifah does not stop at being a theological concept, but is brought to life through daily actions that gradually foster ecological responsibility.

In the next finding, as illustrated in table number two, the value of amanah emerges as a moral foundation that strengthens students' environmental behavior. Research by Abdalla and Indahwati shows that when students are given the understanding that water, plants, and the environment are gifts from Allah, they tend to be more careful in using and caring for them (Abdalla, 2021; Indahwati, 2023). Water conservation, waste sorting, and school cleanliness activities become more meaningful when reinforced by teachers' exemplary behavior. In the context of MI, the role of teachers is not only as educators but also as moral figures who help students understand that protecting the environment is part of their spiritual trust. These findings confirm that the moralistic dimension of religion plays a significant role in shaping sustainable ecological behavior.

The integration of religious values with environmental learning, as shown in table number three, provides a more comprehensive picture of a learning approach that is able to connect students' cognition, affections, and scientific skills. Fitriah's

study shows that field observations, hygiene practices, mini-garden creation, and environmental exploration are natural vehicles for MI students to develop scientific process skills while reinforcing religious values about caring for the earth (Fitriah, 2024). This approach shows that when religious teachings are combined with environment-based learning experiences, students not only understand the importance of preserving nature, but also become more skilled at observing, investigating, and drawing scientific conclusions.

In table 3, numbers four and five, the studies expand on the understanding that the integration of Khalifah–amanah values is not sufficient if it is only done in the classroom. These values need to be embodied in school policies and curricula so that ecological behavior becomes a collective culture (Nugroho et al., 2022; Salama et al., 2025). The Green School program, which includes waste management, expansion of green spaces, and environmental literacy, has been proven to strengthen a learning ecosystem that supports sustainability. Meanwhile, Nugroho et al. (2022) emphasize that incorporating religious values into learning themes and environmental projects makes environmental education more relevant and easier for students to apply. These two findings show that when religious values become the spirit of policy and curriculum, environmental behavior transformation does not only occur at the individual level but becomes a sustained school culture.

Conclusion

This study confirms that integrating the concepts of Khalifah and Amanah into Environmental Education lessons at Madrasah Ibtidaiyah is an approach that is not only relevant but also capable of bringing about significant changes in the way students understand the environment. The idea of Khalifah shows that students need to be aware of their position as guardians of the earth who have moral responsibilities, while the value of Amanah strengthens the ethical and spiritual dimensions in efforts to preserve nature. Overall, these findings show that the Islamic eco-theological perspective can enrich the implementation of Environmental Education through increased ecological literacy, the formation of environmentally friendly behavior, and a more profound learning experience for Madrasah Ibtidaiyah students.

In terms of implementation, the integration of these two values provides an important pedagogical foundation for teachers in fostering a school culture that cares about the environment. Academically, this study also contributes to the development of an environmental education model based on Islamic values as a whole. However, this study is still limited to literature analysis. Therefore, further field-based research is needed to assess its effectiveness directly in the classroom, as well as to develop Islamic eco-theology-based Environmental Education modules that have the potential to be applied more widely.

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