

Eco-Theological Pedagogy in Islamic Education: the Transformation of Teacher Professionalism at Madrasah Schools

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ABSTRACT. The environmental awareness crisis has caused an imbalance in the relationship between humans and nature. Increasing pollution, waste, and the loss of biodiversity are contributing to global warming. Islamic educational institutions must respond through eco-theological strategies. This study aims to describe strategies to develop the pedagogical competencies of Islamic education teachers in environmental stewardship at MAN 7 Jombang. Building on this development, the next objective is to describe the patterns of integrating eco-theology into the curriculum. This qualitative case study examines strategies for developing teachers' competencies in environmental management and integrating these competencies into the curriculum. Primary data were collected from the school principal, the curriculum, and teachers at MAN 7 Jombang. The research findings indicate that the development of teachers' pedagogical competencies is carried out in three stages: 1) teachers are tasked with creating eco-theology modules and converting them into lesson plans; 2) teaching eco-theology by integrating it into classroom instruction and projects that provide long-term contributions; 3) the pinnacle of competency is the "green madrasah," involving institutions and the community to protect the environment. This pattern represents a paradigm shift in eco-theology, leading to the subjective analysis that eco-theology can be realized in character, behavior, and social and religious projects.

Keywords: *Eco-theology; Pedagogical competence; Environmental education; Islamic education institutions; Green madrasah.*

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INTRODUCTION

The current global environmental crisis has evolved into one of the most serious challenges facing civilization (Katuuk et al., 2025). Climate change, biodiversity loss, and pollution indicate that the relationship between humans and nature has undergone a profound disruption, both ecologically and morally (Maarif et al., 2026; Rahman et al., 2025). Assert that the environmental crisis demands a cross-sectoral paradigm shift, including in Islamic education, because Islamic education serves not only to transfer knowledge but also to shape the awareness, attitudes, and ethical orientation of the younger generation toward environmental sustainability (Becker & Schwartz, 2022). In this context, the primary issue that needs to be examined is not merely the increasing environmental degradation, but rather how Islamic education can serve as a strategic medium for fostering ecological responsibility through the enhancement of teachers' competencies (Amin et al., 2025; Latuapo & Farid, 2024).

A number of studies have underscored the urgency of environment-based education and eco-theology. Becker and Schwartz, demonstrate that the global ecological crisis demands systemic change, (Telhalia & Munte, 2025) while Latuapo and Farid position education as a key instrument

in shaping sustainable behavior (Sunesti & Zunariyah, 2025). Telhalia and Munte also emphasize the role of religious educators as agents of ecological value transformation in the learning process (Romdloni et al., 2024) In Indonesia, Sunesti and Zunariyah show that Islamic education policies are beginning to open space for environmental awareness movements in Islamic educational institutions, (Hendri Hermawan Adinugraha & Ali Muhtarom, 2021) while Romdloni find that eco-theological practices in schools remain largely focused on technical activities such as greening, cleanliness, and waste management (Muis et al., 2018). This means that existing research has been quite robust in explaining the importance of environmental education, but has not yet sufficiently explained how eco-theology can be operationalized pedagogically by teachers.

The most glaring gap in the research lies in the lack of adequate discussion regarding the integration of eco-theological values into teachers' pedagogical competencies (Adiyono et al., 2025; Ardianto et al., 2026; Aryasutha et al., 2025; Badrudin et al., 2025; Hasanah & Husna, 2025; Ismawati, 2023). Most previous studies still position eco-theology as a moral movement, institutional policy, or curricular orientation, rather than as a framework for teachers' competencies in the planning, implementation, and evaluation of learning (Cahyani et al., 2026; Matos, 2025; Maulida et al., 2025; Nursyam et al., 2025; Salamah et al., 2025). Rayson emphasizes the importance of the concepts of *khalifah*, *amanah*, and *rahmatan lil 'alamin* in fostering ecological responsibility, but has not elaborated on how these concepts are translated into concrete pedagogical practices. Similarly, Adow and other studies in Islamic education have focused more on students' ecological learning outcomes, while the dimension of teachers' pedagogical transformation remains unexplained in detail (Husni et al., 2026). Therefore, this paper is necessary to address this gap by positioning teachers as the primary agents in the internalization of eco-theology within the classroom.

Based on this gap, the objective of this study is to analyze the development of teachers' eco-theology-based pedagogical competencies at MAN 7 Jombang. The focus of this study is specifically directed at how Islamic values related to ecology are integrated into lesson planning, teaching implementation, and learning assessment. Thus, this paper discusses eco-theology not merely as a normative discourse but as an operational pedagogical framework capable of strengthening environmentally oriented Islamic educational practices. This focus distinguishes the study from previous research, as it seeks to complement existing literature that primarily emphasizes the curriculum and students' ecological awareness, while teachers' pedagogical capacities have not yet been positioned as the central focus of analysis. As shown in the table below:

Table 1. Integration of Ecotheology in the Development of Teachers' Pedagogical Competence at MAN 7 Jombang

Development Aspects	Implementation in Madrasahs	Impact on Teachers' Pedagogical Competence
Curriculum integration	Environmental material linked to verses from the Qur'an and hadiths about nature	Teachers are able to design interdisciplinary learning between religion and science.
Learning methods	Project-based learning and problem-based learning about the environment	Teachers develop contextual and participatory learning strategies.
Practical activities	Greening programs, waste management, water conservation	Teachers train students through experiential learning.
Madrasah culture	Green madrasah programs and eco-madrasah activities	Teachers strengthen students' ecological character education.
Teacher collaboration	Internal discussions and training related to environmental education	Teachers enhance pedagogical innovation based on eco-theological values.

This study examines the argument that the integration of eco-theology into teachers' pedagogical competencies strengthens their ability to design contextual, meaningful, and ecologically conscious learning experiences. In other words, this study is based on the assumption that when theological values such as *khalifah*, *amanah*, and *rahmatan lil 'alamin* are truly internalized into pedagogical practice, teachers not only convey subject matter but also shape students' ecological perspectives. The case study at MAN 7 Jombang was selected to demonstrate how this integration is actually implemented in the madrasah context, while also offering a conceptual contribution in the form of a model of eco-theological pedagogical competencies and an empirical contribution in the form of implementation practices that can be replicated in Islamic education.

METHOD

This study uses a qualitative approach (Nasution, 2023) with a case study method (Hardani, S.Pd. et al., 2020) to explore how the pedagogical competence of Islamic education teachers is developed through three stages: eco-theology module literacy, curriculum integration, and green madrasah. A qualitative approach was chosen because this study aims to gain an in-depth understanding of teachers' interpretations and pedagogical practices in integrating eco-theological values into the learning process. This approach allows researchers to capture the subjective meanings that teachers have regarding the relationship between Islamic teachings and ecological responsibility in educational practice.

Primary data were obtained from Islamic education teachers teaching at madrasahs, madrasah principals, and school environmental program coordinators. Islamic education teachers were chosen as the main source of data because they act as pedagogical actors who directly integrate religious values into the learning process. The research location at MAN 7 Jombang was chosen because this madrasah has developed an environmental education program or sustainability-based school activities. This context provides a relevant empirical space to explore how eco-theological values are applied in Islamic education learning practices. Secondary data was obtained from educational documents such as lesson plans (RPP), Islamic religious education teaching materials, madrasah curricula, and school policy documents related to environmental education. These documents were used to understand how environmental values are formalized in the learning structure and educational policies at the madrasah.

The main instrument in this study was the researcher as the primary instrument (human instrument) (Saefullah, 2024) as is common in qualitative research. However, to assist in the systematic data collection process, the researcher used several supporting instruments. (Yakin, I, 2023) The first instrument is a semi-structured interview guide designed to explore teachers' understanding of the concept of eco-theology in Islam, the pedagogical strategies used in teaching environmental values, and the experiences and challenges they face in integrating environmental education into learning. The second instrument is a classroom observation sheet, which is used to record teachers' pedagogical practices during the learning process. The observations focused on the learning methods used by teachers, how they linked religious education material to environmental issues, and the interactions between teachers and students in discussions about ecological responsibility. (Rosyada, 2020) The third instrument was a document analysis guide, which was used to examine various learning documents such as lesson plans, teaching materials, and school policies related to environmental education. Document analysis helps researchers understand how Islamic ecological values are integrated into the curriculum structure and learning materials.

RESULT AND DISCUSSION

Result

Teachers' Pedagogical Manifestations at MAN 7 Jombang

The pedagogical competency pattern of teachers at MAN 7 Jombang is oriented towards teacher's ability to respond to modern social changes, particularly issues related to the environmental crisis. This is reflected in the madrasah's academic policy, which encourages the integration of ecological values into the learning process. Based on the results of the review of the Lesson Plan, it was found that environmental issues did not only appear as additional themes, but had been placed as part of a systematically planned learning component.(Ulum et al., 2023) Learning does not only emphasize cognitive aspects but is also directed at shaping students' ecological awareness. The pedagogical planning of teachers at MAN 7 Jombang has begun to adopt a contextual approach that positions environmental issues as an important part of the educational process in responding to social and ecological challenges.

“We emphasize environmental content in every Basic Competency related to religious subjects so that these issues are not overlooked in the learning process. In preparing lesson plans, teachers are asked to link teaching materials to real environmental issues so that students can understand the relationship between scientific knowledge and religious values.”(Setiani, 2025)

Teachers use an interdisciplinary approach to link religious and environmental material. In the Tafsir and Biology lessons observed, teachers linked verses on creation to the concept of ecosystems and used local data in class discussions.

“We strive to show real examples found in the environment around the madrasah so that students can directly understand the connection between religious teachings and scientific concepts. For example, when discussing material about the creation of nature or ecosystem balance, we invite students to observe the environmental conditions around the school, such as garden management, environmental cleanliness, or the existence of plants in the madrasah area. In this way, the relationship between religion and science becomes easier to understand and feels more relevant to the students' learning experiences.”(Sulaiman, 2025)

In learning practice, project-based learning and action-based learning methods are routine: students work on class waste management and school greening projects. Teachers facilitate everything from problem formulation to presentation of results. The madrasah environment is used as a learning “laboratory”: gardens, composters, and biopore points are used for science practice and religious reflection. Teachers also develop reflective learning: discussion sessions are used to link students' daily actions with the concepts of amanah and khalifah.(Karpudewan et al., 2009) Teachers act as facilitators who guide students from the problem identification stage, activity planning, project implementation, to report writing and presentation of results in class.(Haggag et al., 2025) In addition, the madrasah environment is used as a source of contextual learning, where facilities such as school gardens, organic composters, and biopore points are used as practical tools to understand the concepts of ecosystems, material cycles, and the reciprocal relationship between humans and nature.

In addition to these practical activities, teachers also develop a reflective learning approach that links student activities with environmental ethical values from a religious perspective. In several classroom discussion sessions that were observed, teachers invited students to reflect on their daily behaviors, such as their habits of littering, water usage, and concern for the cleanliness of the school environment. These discussions were then linked to theological concepts in Islam, such as amanah (responsibility) and khalifah (the role of humans as guardians of the earth). “*The school garden is an effective learning medium to help students directly understand the cycle of life and the reciprocal relationship between humans and nature.*”(Sungkono, 2025).

The analysis of the lesson plans revealed two different patterns of practice: one group of teachers applied innovative learning strategies—such as project-based learning, action-based learning, and interdisciplinary integration between science and religious education—with lesson plans that included affective indicators and field activities; while the other group still relied on traditional methods of lecturing and test-based evaluation, so that environmental content only appeared incidentally. In summary, the pedagogical development pattern at MAN 1 Malang shows a systemic integration between curriculum policy, teacher training, contextual learning practices, and authentic assessment aimed at responding to modern social changes. However, structural challenges and variations in teachers' understanding still exist.

Administrative to Ethical: Pedagogical-Ecotheological Transformation

The findings indicate a shift in orientation in the implementation of ecotheology at MAN 7 Jombang from an administrative approach to a more ethical and pedagogical approach. In the initial stage, ecotheological activities were mostly manifested in institutional programs such as school greening, environmental clean-up activities, and waste management. (Ferreira et al., 2024) These activities were generally carried out as part of the madrasah's routine agenda and recorded in annual activity reports, but were not systematically integrated into teachers' lesson plans.

Environmental activities emerged as activities that supported the school culture. For example, tree planting and community service activities were recorded in the madrasah activity calendar and carried out collectively by students and teachers. However, the lesson plans for that period showed that environmental content was not yet part of structured learning indicators. *“Initially, environmental activities were mostly routine madrasah activities such as greening or community service, but they were not yet fully integrated into the classroom learning process.”* (Maftuhah, 2025)

Changes began to appear when the madrasah evaluated the effectiveness of the environmental program that had been running. These changes stemmed from the realization that environmental activities needed to have a pedagogical dimension in order to have a more profound impact on student learning.

“We began to see that environmental activities were not enough to be merely ceremonial; there needed to be integration with the learning process so that students understood their meaning. This reflection process became the starting point for the transformation from an administrative approach to a pedagogical approach.” (Suwinqno, 2025)

This transformation was then realized through the strengthening of teachers' pedagogical competencies. Teachers were encouraged to link Islamic concepts such as khalifah, amanah, and human responsibility towards nature with the subject matter they taught. One teacher stated that environmental issues began to be systematically integrated into the learning structure. Several lesson plans included indicators related to students' understanding of the relationship between humans and nature and ecological responsibility. This integration was evident in various subjects such as Islamic Religious Education, Biology, and Geography. Thus, environmental content no longer stood as a separate program but became part of the learning objectives designed by teachers.

Some teachers have begun to apply contextual learning methods by utilizing environmental phenomena around the madrasah as material for classroom discussion. In one learning session, the teacher linked the concept of natural balance with the environmental management practices carried out by students at school.

“We try to connect what students see in the school environment with the concepts they learn in class. So when they study a subject, teachers not only explain it theoretically, but also encourage students to pay attention to the real conditions around the school, such as environmental cleanliness, the presence of plants, or waste management. In this way, students can understand that the concepts they learn are not only in books, but can also be found in their daily lives in their own environment.” (Sulaiman, 2025)

In addition to the integration of material, changes can also be seen in the use of project-based learning methods. Teachers develop project assignments related to school environmental management, such as organic waste processing and madrasah garden maintenance. Teachers act as facilitators who guide students from problem identification to project presentation. This practice shows that eco-theology learning is beginning to be directed towards practical and participatory learning experiences. The madrasah environment is also beginning to be used as a broader learning space. Facilities such as school gardens, organic composters, and green areas are used as learning practice media. Teachers invite students to directly observe ecological processes that occur in the school environment, such as plant growth and organic waste processing. (Bilytska et al., 2022) In an interview, a teacher stated.

This transformation is also evident in the reflective dimension of learning. Teachers invite students to reflect on daily actions related to the environment, such as water use and waste management. Many students in the discussion were able to link simple actions to broader ethical consequences. This change in orientation is also reflected in the madrasah's development vision. Environment-based education is beginning to be positioned as one of the madrasah's flagship programs. The program not only covers environmental activities but also curriculum strengthening and teacher competency development. A member of the madrasah management team stated.

“We want to make environmental education part of the madrasah's identity, so that concern for nature is not just additional material in the classroom, but a value that is alive in the school culture. Therefore, various learning activities, school policies, and student activities are directed at fostering ecological awareness, such as maintaining cleanliness, caring for plants, and understanding the relationship between religious teachings and responsibility for the environment. In this way, we hope that students will not only understand the importance of protecting nature in theory, but also make it an attitude and habit that is embedded in their daily lives at the madrasah.” (Setiani, 2025)

However, this transformation is still taking place gradually. Some teachers are consistently developing eco-theology-based pedagogical approaches, while others are still in the adaptation stage. This difference can be seen in the variations in lesson planning and methods used in the classroom. This condition shows that the process of internalizing eco-theological values still requires ongoing professional development support. Thus, there has been a clear shift from an administrative approach to eco-theology towards a more ethical and pedagogical approach. If in the early stages environmental activities functioned more as symbolic institutional programs, in the next stage these activities began to be integrated into teachers' pedagogical competencies, learning curricula, and madrasah development visions. This shift shows that eco-theology is no longer understood merely as environmental activities, but as a framework of values that shapes the educational process and learning practices in madrasahs.

Pedagogy and Curriculum Integration based on Ecotheology

The integration of ecotheology into the curriculum at MAN 7 Jombang developed through a process of strengthening teacher pedagogy and adjusting the curriculum structure. The basics of ecology began to be explicitly included in the learning objectives. Of the 24 lesson plans analyzed in three main subjects (Islamic Religious Education, Biology, and Geography), 18 lesson plans included learning indicators related to understanding human responsibility for the environment. This shows that the curriculum not only contains conceptual material but also emphasizes the ethical dimension related to Islamic values regarding the relationship between humans and nature. The results of the curriculum document analysis are summarized in the following table:

Table 2. Integration of Ecotheology in the MAN 7 Jombang Curriculum Document

Curriculum Components	Number of Documents Analyzed	of Documents Ecotheology	with Content Percentage
RPP Pendidikan Agama Islam	8	7	87.5%
RPP Biologi	8	6	75%
RPP Geografi	8	5	62.5%
Total	24	18	75%

The table shows that eco-theology integration is most dominant in Islamic Religious Education, where almost all lesson plans contain indicators related to ecological responsibility from an Islamic perspective. This integration is evident in the learning objectives that link the concepts of khalifah fi al-ardh, amanah, and the obligation to maintain the balance of nature with environmental phenomena that occur in everyday life. *“In our current lesson plans, environmental issues are not just additional examples, but part of the learning objectives that students must understand.”* (Kezia, 2023).

In addition to being reflected in the curriculum documents, the integration of ecotheology is also evident in the learning strategies applied by teachers in the classroom. Teachers utilize the school's environmental conditions, such as the madrasah garden and green areas, as learning media to explain the concepts of ecosystems and human responsibility towards nature. This practice shows that curriculum integration does not only occur at the document level, but also in pedagogical implementation in the classroom. The use of project-based learning methods is also a form of ecotheology-based curriculum implementation at MAN 7 Jombang. Most of the students' activities are related to school environmental management, such as organic waste management and maintenance of the madrasah's greenery. Teachers act as facilitators who guide students in designing activities, collecting data, and presenting their project results. The results of the analysis of student project reports are summarized in the following table.

Table 3. Types of Environment-Based Learning Projects

Project Type	Jumlah Proyek	Persentase
Organic waste management	5	41.7%
Madrasah garden maintenance	4	33.3%
Water conservation campaign	2	16.7%
School environmental greening	1	8.3%
Total	12	100%

The data shows that the projects most commonly undertaken by students relate to organic waste management and the maintenance of green madrasahs. These activities are not only aimed at increasing students' knowledge about the environment, but also provide them with direct experience in preserving the school environment. Project-based learning is an important means of connecting the curriculum with real-world practice. In addition, the integration of eco-theology into the curriculum is also evident in the learning evaluation system used by teachers. Several lesson plans analyzed included assessment rubrics that not only assessed students' cognitive aspects but also their attitudes and behaviors related to environmental awareness. For example, in one of the biology lesson plans, there were assessment indicators that measured student participation in waste management activities and their ability to reflect on the relationship between human activities and ecosystem balance (Ragulina & Zavalko, 2013). This shows that learning evaluation has begun to accommodate the affective dimension in environmental education.

Although the integration of ecotheology into the curriculum has shown significant progress, there are still several issues that need to be addressed. Some teachers stated that they still need additional training to design more systematic environment-based learning activities. “We need more examples of lesson plans and learning activities that can be directly applied in the classroom.”(Sungkono, 2025)

Thus, the curriculum at MAN 7 Jombang has begun to systematically integrate eco-theological values into learning documents, pedagogical strategies, and student evaluation systems. This integration is evident in the increasing number of lesson plans that include environmental indicators, the use of project-based learning methods, and the application of assessments that consider ethical and ecological aspects. Thus, the curriculum not only serves as a teaching guide but also as an educational framework that instills ecological awareness in students through a structured and contextual learning process.

Discussion

The Shift in Teacher Paradigms: Pedagogical Transformation

The integration of eco-theology into educational practices at MAN 7 Jombang does not only occur at the institutional program level, but also involves a shift in the pedagogical paradigm of teachers. This shift is evident in the transformation of the learning orientation, which was previously administrative in nature—such as greening or environmental cleanliness activities—into a more reflective and value-based pedagogical approach (Sururi et al., 2020). This change shows that teachers have begun to position environmental issues as part of educational objectives, rather than merely additional activities in the madrasah program (Septiani & Cahyono, 2019). This finding reinforces the argument that the transformation of environmental education requires a change in the pedagogical paradigm of teachers so that sustainability values can be systematically integrated into the learning process.

A change in the pedagogical paradigm is one of the main prerequisites for developing sustainable education. Stevenson emphasize that effective environmental education requires a learning approach that connects ecological knowledge with ethical and social dimensions (Solichati & Musfiqon, 2020). This shows a similar trend, where teachers in madrasahs are beginning to integrate theological concepts such as amanah and khalifah into environmental learning (Fikri et al., 2021). This integration not only strengthens the cognitive dimension of learning but also builds students' moral awareness of ecological responsibility.

This shift is in line with studies on Education for Sustainable Development (ESD), which emphasize the importance of transforming the role of teachers in the educational process (Suryadi, 2021) UNESCO (2021) emphasizes that teachers need to develop participatory, reflective, and contextual learning approaches so that students can understand the complexity of environmental issues (Idris, 2019). In the context of this study, pedagogical transformation can be seen from the use of project-based learning methods, religious reflection, and the use of the madrasah environment as a contextual learning space.

However, this study shows a relatively different dimension compared to most ESD studies, which tend to focus on secular approaches (Setiawan, 2020). In the madrasah context, environmental education integration is carried out through an eco-theological framework that connects religious values with ecological awareness (Pantan, 2025). This approach shows that theological values can be a strong source of environmental ethics in the educational process. These findings expand the discourse on environmental education by showing how a theological framework can serve as a pedagogical foundation for building ecological awareness (McVeigh et al., 2025).

Furthermore, the paradigm shift in teachers' pedagogy did not occur instantly, but through an institutional process involving curriculum development, teacher training programs, and sustainable learning practices. Darling-Hammond emphasizes that pedagogical transformation requires institutional support so that teachers can develop their professional competencies

consistently (DeWitt, 2025). Institutional support from madrasahs plays an important role in encouraging teachers to integrate eco-theological values into the curriculum and learning. The use of experience-based learning approaches such as project-based learning contributes significantly to strengthening the integration of eco-theology in learning.

Barron and Darling-Hammond explain that project-based learning allows students to understand concepts more deeply through direct experience. In the context of madrasahs, waste management projects, water audits, and school greening become learning media that allow students to connect scientific knowledge with religious values (Mercer, 2022). However, there are variations in teachers' pedagogical abilities to integrate eco-theology into learning. Some teachers show high innovation in developing contextual learning methods, while others still rely on traditional teaching approaches. These findings are consistent with the research by Evans, which shows that pedagogical changes often face challenges in their implementation due to differences in teachers' experiences and professional readiness (Masaiti & Chirongoma, 2025).

Thus, the pedagogical transformation of teachers is a key element in the integration of eco-theology in education. The paradigm shift from an administrative approach to an ethical and pedagogical approach shows that environmental education is not only related to activity programs, but also to changes in how teachers interpret their role in the educational process. Thus, the pedagogical transformation of teachers becomes a strategic factor in building education that is responsive to environmental challenges at the local and global levels.

Ecotheology Curriculum: Integrating Local Potential Learning

The eco-theology model developed by MAN 7 Jombang positions teachers as developers of eco-theology curricula in madrasahs, which not only serve to integrate environmental issues into learning but also as a means of connecting education with the local potential of the social and ecological environment surrounding the madrasah. This integration is evident in the use of the surrounding environment—such as the madrasah garden, waste management, and water conservation practices—as learning resources that connect scientific concepts with religious values. The curriculum is no longer understood merely as a formal learning document, but as a pedagogical framework that enables students to understand the relationship between humans, religion, and nature in a contextual manner (Katuuk et al., 2025).

The integration of local context into the curriculum has long been considered an important strategy in improving the relevance of learning. Stevenson emphasize that effective environmental education must utilize the social and ecological contexts that are close to the lives of students (Becker & Schwartz, 2022). Teachers utilize the madrasah environment as a learning laboratory to explain ecological concepts as well as environmental ethical values in Islam (Telhalia & Munte, 2025). In the place-based education approach, which emphasizes the importance of linking learning to the local environment and culture, Smith and Sobel explain that this approach allows students to understand the relationship between academic knowledge and the realities of their lives (Rayson, 2023). In the madrasah context, the integration of local potential is seen in the use of school environmental management practices as a learning medium that combines scientific and theological dimensions.

However, an additional dimension that is rarely discussed in international literature is the integration between local potential and the eco-theological framework. This integration shows that environmental education in the context of Islamic education has different characteristics compared to general environmental education models (Adow et al., 2024). The integration of local potential into the curriculum not only enriches students' learning experiences but also strengthens teachers' pedagogical competencies. Teachers no longer rely solely on textbooks as the main source of learning but also utilize the surrounding environment as a medium for contextual learning. This approach is in line with the concept of experiential learning, which emphasizes the importance of direct experience in the learning process (Hardy, 2023).

In learning practices, the use of project-based learning methods is one of the strategies that supports the integration of the eco-theology curriculum with local potential. Projects such as classroom waste management, composting, and greening the madrasah provide opportunities for students to practice ecological knowledge while reflecting on religious values regarding human responsibility towards nature. This approach is in line with Thomas's research, which shows that project-based learning can increase student engagement in understanding environmental issues more deeply (Karman et al., 2023).

The integration of local potential into the curriculum has implications for the formation of students' ecological awareness (Nur et al., 2025). This reinforces the argument that effective environmental education must combine cognitive, affective, and ethical dimensions in the learning process. The implementation of the eco-theology curriculum still faces several challenges, particularly related to variations in teachers' pedagogical competencies (Alotaibi et al., 2020; Blegur et al., 2024; Johari et al., 2024; Lapasere et al., 2025; Mustofa et al., 2025). Not all teachers have adequate experience or training in integrating environmental issues and theological values into learning. These findings are in line with research by Evans, which shows that the successful implementation of environmental education is highly dependent on teachers' professional readiness (Masaiti & Chirongoma, 2025)

From a global perspective, the findings of this study are relevant to the international agenda on Education for Sustainable Development (ESD), which emphasizes the importance of integrating sustainability into the education system (DeWitt, 2025). The eco-theology curriculum approach, which utilizes local potential, shows that value- and culture-based education can make an important contribution to global efforts to address the environmental crisis (Moyo & Mlenga, 2024). The integration of local potential in the ecotheology curriculum can be an effective strategy in transforming learning to be more contextual, reflective, and sustainability-oriented. Thus, the ecotheology curriculum not only functions as an educational innovation at the local level but also as a contribution to the development of a globally relevant environmental education model.

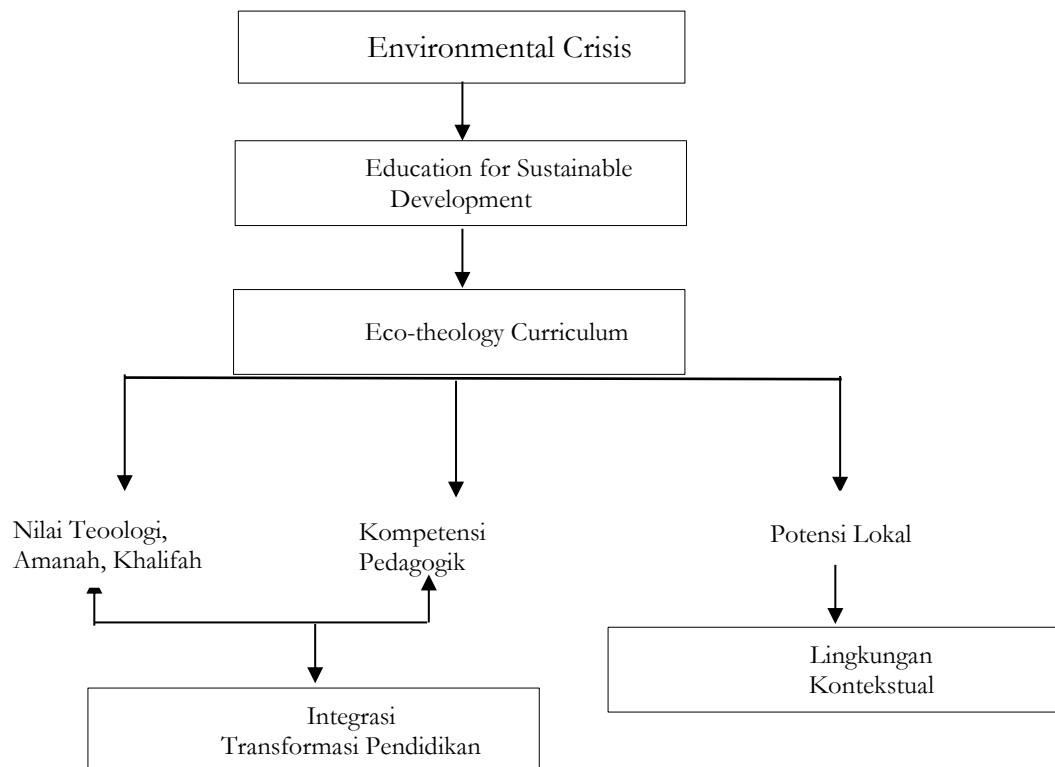


Figure 1. Concept Map of the Ecotheology Curriculum

CONCLUSION

This study found that the integration of eco-theology into teachers' pedagogical competencies does not occur spontaneously, but rather through a multi-layered transformation process that begins with the strengthening of theoretical knowledge and extends to the development of concrete teaching practices. The most significant finding indicates that intensive training and ecological theology modules not only enhance teachers' conceptual understanding but also transform the way they design lesson plans, manage classrooms, and connect instructional content with ecological awareness. An intriguing and not entirely predictable finding is that eco-theology does not remain merely a normative theme but evolves into a pedagogical culture that influences the cognitive orientation of both teachers and students in interpreting the relationship between faith, moral responsibility, and environmental sustainability.

Scientifically, this article offers a new contribution by positioning eco-theology as a framework for developing pedagogical competencies, rather than merely as a religious discourse or an institutional environmental program. Thus, this study reinforces previous research emphasizing the importance of ecological education, while simultaneously going beyond it by demonstrating that teachers are key actors in transforming theological values into structured pedagogical actions. The conceptual contribution of this study lies in affirming the relationship between eco-theology, pedagogical competence, and the formation of a green madrasah culture as an integrative model that can enrich the discourse on environmentally conscious Islamic education.

Nevertheless, this study has limitations because it focuses on only one case, so the findings cannot yet be generalized to all madrasahs with different institutional contexts. This study also has not quantitatively measured the long-term impact of eco-theology integration on changes in students' ecological behavior or the effectiveness of learning across contexts. Therefore, further research needs to be conducted in several madrasahs with diverse levels, regions, and characteristics, and using a comparative or longitudinal design so that the eco-theology pedagogical competency model can be tested more rigorously. Subsequent studies are also important to assess whether eco-theology-based pedagogical transformation truly produces sustainable ecological behavioral changes at both the individual and institutional levels.

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