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Islamic Ecotheological Education in Islamic Higher Education: Integrating Theology, Environmental Ethics, and the Transformation of Ecological Awareness

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Abstract:
This paper aims to analyze the conceptual foundations of Islamic ecotheological education, the urgency of integrating it into higher education, and strategies for its development through curricula, pedagogy, campus culture, and the implementation of the three pillars of higher education. This study employs a qualitative approach using library research. Data were obtained through a review of academic literature on Islamic ecotheology, environmental ethics, environmental education, and sustainable higher education. The analysis was conducted descriptively, critically, and interpretively to develop a conceptual synthesis of integrative ecotheological education. The findings indicate that ecotheological education should not be treated merely as supplementary material in religious or environmental education. Rather, it needs to be developed as an educational paradigm that connects awareness of God with ecological responsibility. Its integration can be pursued through curriculum reconstruction, transformative learning, the strengthening of an ecological campus culture, and the development of research and community engagement. Accordingly, Islamic higher education institutions can contribute to shaping a generation of Muslims who demonstrate not only individual and social piety but also ecological piety.

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Introduction (مقدمة)

The ecological crisis is one of the fundamental challenges confronting contemporary society. Climate change, air and water pollution, deforestation, soil degradation, declining

biodiversity, and increasing volumes of waste demonstrate the growing complexity of the relationship between human activities and environmental sustainability. This crisis cannot be understood merely as a technical problem requiring technological innovation or natural resource management policies. Underlying ecological destruction are more fundamental issues concerning how human beings understand their position within nature, establish relationships with the environment, and determine the moral orientation guiding their use of the resources necessary for life.

White (1967) once argued that certain religious interpretations that position human beings as masters of nature may contribute to the development of an anthropocentric worldview that legitimizes environmental exploitation. This critique subsequently generated extensive debate concerning the relationship between religion and ecology. Although White's argument cannot be generalized as the sole representation of all religious traditions, it provides an important impetus for reconsidering the role of religion in developing ecological ethics. Jenkins (2009) demonstrates that religious responses to environmental problems need to move beyond normative apologetics and toward the development of ethical frameworks relevant to contemporary ecological challenges.

From an Islamic perspective, nature is not merely an object available to satisfy human needs. It is God's creation, characterized by order, balance, and intrinsic significance as part of the signs of His greatness. Human beings have indeed been appointed as *khalifah* (stewards or vicegerents) on earth, but this position does not legitimize the unlimited exploitation of nature. On the contrary, the concept of *khalifah* entails a moral responsibility to preserve, manage, and safeguard the continuity of life. The principles of *amanah* (trust), *mizan* (balance), justice, and the prohibition of *fasad fi al-ardh* (corruption or destruction on earth) provide theological foundations for the development of Islamic environmental ethics.

Nevertheless, such theological understandings have not always been translated into ecological behavior. Religious education in various educational institutions may still place greater emphasis on ritual dimensions, individual morality, and the mastery of normative knowledge than on the development of environmental responsibility. Consequently, ecological problems are sometimes regarded as secondary issues lying outside the central concerns of religious discourse. Yet consumerism, resource waste, pollution, and indifference toward environmental degradation are also ethical problems associated with human responsibility before God and other creatures.

This is where ecotheological education becomes relevant. Ecotheology connects theological reflection with ecological problems, enabling human relationships with nature to be understood not merely in terms of material interests but also in terms of spiritual and moral responsibility. Nasr (1996) reminds us that the modern environmental crisis is connected to a spiritual crisis in which human beings have lost awareness of the sacred significance of nature. Meanwhile, Foltz et al. (2003) demonstrate that Islamic intellectual and ethical traditions provide conceptual resources that can be developed to respond to environmental problems.

Islamic higher education institutions occupy a strategic position in the development of ecotheological education. As educational institutions that integrate scientific knowledge with Islamic values, they are expected to do more than produce graduates with academic and professional competencies. They must also cultivate individuals with moral sensitivity, social responsibility, and ecological awareness. Ecotheological education can serve as an approach to connecting scientific knowledge with awareness of God and responsibility for the sustainability of life.

Several studies have indicated a potential relationship between religious education, Islamic values, and ecological behavior. Begum et al. (2021), for example, found a positive relationship

between environmental education and university students' environmentally friendly behavior, with environmental responsibility and Islamic values emerging as relevant factors in this relationship. Mardhiah et al. (2021) also demonstrated the importance of a humanistic and contextual approach to Islamic religious education in developing students' environmental concern. More recent studies on ecotheological education in higher education have likewise begun to emphasize the integration of theological values into curricula, learning processes, and campus culture (Afandi & Fuadi, 2025; Kadi & Tamam, 2025).

Nevertheless, the development of ecotheological education in Islamic higher education continues to face several challenges. Ecology has not yet been fully established as a cross-disciplinary perspective within curricula; religious learning is sometimes insufficiently connected to current environmental problems; and sustainable campus programs are not always supported by a strong educational foundation. Furthermore, a gap remains between religious knowledge, environmental attitudes, and ecological actions in everyday life. An educational approach is therefore needed that can connect cognitive, affective, spiritual, and behavioral dimensions.

In response to these issues, this article aims to analyze the conceptual foundations of Islamic ecotheological education, the urgency of its development in Islamic higher education, and strategies for integrating it into curricula, pedagogy, campus culture, and the implementation of the three pillars of higher education. This article proposes that ecotheological education should be developed as an integrative paradigm connecting theology, environmental ethics, and the transformation of ecological awareness. Its principal contribution lies in formulating a conceptual model of ecotheological education that moves beyond the internalization of religious knowledge toward the cultivation of ecological responsibility and action

Method (منهج)

This study is a library-based research project. It focuses on examining concepts, theories, and ideas concerning ecotheological education in the context of Islamic higher education. Library research enables researchers to identify, examine, and synthesize various theoretical perspectives in order to develop a more comprehensive conceptual understanding. Snyder (2019) explains that literature reviews can serve as a research methodology for integrating findings and perspectives from various publications while developing new conceptual frameworks.

Data were collected through the identification and examination of relevant academic literature, including scholarly journal articles, academic books, and documents related to Islamic ecotheology, environmental ethics, Islamic higher education, environmental education, and sustainable development. The literature search drew on several academic sources and supporting reference-search tools. Retrieved literature was assessed in terms of substantive relevance, clarity of publication information, and the credibility of its publisher or journal before being used as a basis for analysis.

Data analysis was conducted through document analysis. Bowen (2009) explains that document analysis is a systematic procedure for examining and evaluating documents, whether in printed or electronic form, in order to obtain information and understanding relevant to the research focus. In this study, the analysis involved critical reading, identification of key ideas, comparison of perspectives, and interpretation of the relevance of each source to the development of ecotheological education in Islamic higher education.

The data were subsequently analyzed through descriptive-critical and interpretive procedures. First, the study identified the principal concepts of Islamic ecotheology, particularly those concerning the relationship between God, human beings, and nature. Second, it connected these theological foundations with the principles of environmental ethics and sustainable

education. Third, it analyzed the opportunities and challenges involved in integrating ecotheological education into curricula, learning processes, campus culture, and the implementation of the three pillars of higher education. Fourth, it synthesized the analytical findings into an integrative conceptual model of ecotheological education that can be developed within Islamic higher education institutions.

Result (نتائج)

The findings reveal that ecotheological education in Islamic higher education is grounded in the integration of Islamic theological principles, environmental ethics, and ecological awareness. Core concepts such as *tawhid*, *khalifah*, *amanah*, *mizan*, and the prohibition of *fasad* provide a theological and ethical foundation for fostering human responsibility toward the environment.

The study also identifies the importance of integrating ecotheological perspectives into higher education curricula through interdisciplinary learning that connects Islamic teachings with contemporary environmental challenges. This integration requires pedagogical approaches that go beyond theoretical instruction by encouraging critical reflection, experiential learning, and active student participation in environmental initiatives.

Furthermore, the findings highlight the importance of developing an ecological campus culture through institutional policies, sustainable resource management, environmental research, and community engagement. The university's three pillars of higher education—education, research, and community service—provide strategic opportunities to translate ecotheological values into concrete environmental practices.

Based on these findings, an integrative conceptual framework emerges, comprising five interconnected dimensions: theological foundations, environmental ethics, curricular integration, transformative pedagogy, and institutional ecological practices. Their interaction is expected to strengthen students' ecological awareness and encourage the transformation of religious understanding into environmentally responsible behavior.

Discussion (مناقشة)

Islamic Ecotheology: Reconstructing the Relationship between God, Human Beings, and Nature

Ecotheology is a theological approach that connects understandings of God, human beings, and nature with moral responsibility in addressing ecological problems. This approach is based on the recognition that the environmental crisis is caused not merely by technological limitations, inadequate regulations, or failures in natural resource management. It is also related to the paradigms through which human beings perceive nature and understand their place within the wider web of life. A worldview that regards nature solely as an instrument for satisfying human needs may encourage exploitative behavior. Addressing the ecological crisis therefore requires a paradigmatic transformation that is not merely technical but also ethical and spiritual.

From an Islamic perspective, *tawhid* (the oneness of God) provides the fundamental basis for reconstructing this relationship. Tawhid implies that the entire natural world is God's creation and exists within an interconnected order of life. Human beings are not the absolute owners of nature; rather, they are part of creation and bear responsibility for preserving its balance. Awareness of tawhid should foster respect for life and recognition that human actions toward

nature have a theological dimension of accountability. Environmental destruction is therefore not merely a violation of social norms or state laws; it is also a matter of religious ethics.

The concept of *khalifah fil ardh* (human stewardship on earth) needs to be interpreted critically so that it is not understood as legitimizing human domination over nature. Vicegerency is more appropriately understood as a mandate to manage creation accompanied by responsibility. Human beings have the capacity to utilize natural resources, but this authority is constrained by the principles of *amanah*, justice, public benefit, and the prohibition of destruction. This concept shifts the emphasis from power to responsibility: the greater humanity's capacity to manage nature, the greater its moral obligation to safeguard the continuity of life.

Nasr (1996) connects the modern environmental crisis with a spiritual crisis in which human beings have lost awareness of nature's sacred dimension. This perspective is important because it reminds us that scientific knowledge about the environment does not automatically generate concern for it. A person may understand the consequences of deforestation or pollution yet continue to engage in destructive practices if they lack a strong ethical orientation. In this context, Islamic ecotheology seeks to bring ecological knowledge into dialogue with awareness of God, so that nature is not understood solely in terms of its economic value.

Developments in contemporary Muslim thought also indicate that Islamic environmental ethics can be advanced through the perspectives of ecological justice, the rights of nature, and responsibility toward diverse forms of life. Gade (2023) emphasizes that Muslim responses to environmental change need to consider multispecies perspectives, the rights of nature, and environmental justice. This perspective expands ecotheological discourse beyond the human obligation to protect nature toward recognition that the sustainability of life requires attention to the interests of living creatures and communities affected by ecological destruction.

Accordingly, Islamic ecotheology should be understood as an ethical framework connecting faith with ecological responsibility. Piety cannot be represented solely through the vertical relationship between human beings and God; it must also be reflected in horizontal relationships with fellow human beings and all of creation. This reconstruction provides the foundation for ecotheological education, which positions environmental concern as an integral component of Muslim character formation.

Theological Foundations of Ecotheological Education in Islam

Ecotheological education requires theological foundations that are not merely normative but can also be translated into learning orientations and behavior. Several central Islamic concepts, including *tawhid*, *khalifah*, *amanah*, *mizan*, justice, and the prohibition of *fasad fi al-ardh*, can be developed as a value framework for cultivating ecological awareness. These concepts do not stand independently; rather, they are interconnected in shaping the Islamic understanding of human responsibility toward life.

First, *tawhid* constitutes the ontological and spiritual foundation of ecotheological education. Awareness that nature is God's creation requires human beings to respect the order of creation and the existence of living beings. In the learning process, tawhid needs to relate to an understanding of the unity of creation and ecological interconnectedness. Students should be encouraged to understand that human actions toward the environment cannot be separated from their responsibilities as believers. In this way, tawhid does not remain an abstract theological concept but becomes an orientation that guides attitudes and actions.

Second, the concepts of *khalifah* and *amanah* provide a foundation for developing ecological responsibility. Human beings have been endowed with the capacity to develop knowledge and utilize resources, but these capacities must be directed toward the common good

rather than unlimited exploitation. Education needs to cultivate an understanding that natural resource management must consider environmental carrying capacity, community interests, and the rights of future generations. In this context, *amanah* can be translated into practices such as conserving energy, using water wisely, reducing waste, and avoiding excessive consumption.

Third, the principle of *mizan*, or balance, provides an ethical framework for understanding the order of nature. Ecological destruction frequently occurs when economic interests and human consumption disregard the balance of ecosystems. Learning about *mizan* should therefore be connected to current issues such as climate change, pollution, land degradation, and biodiversity loss. Students should not only examine these issues scientifically but also develop reflections on their moral responsibility to preserve the balance of life.

Fourth, the principle of justice expands ecotheological education into the domain of environmental justice. The impacts of ecological destruction are not distributed equally. Poor communities, groups whose livelihoods depend on natural resources, and vulnerable populations often face greater risks despite contributing relatively little to environmental degradation. Islamic environmental ethics must therefore address the distribution of ecological benefits and burdens, the protection of vulnerable groups, and intergenerational justice.

Fifth, the prohibition of *fasad fi al-ardh* provides a normative basis for rejecting actions that damage the environment. This principle can be contextualized through discussions of pollution, illegal logging, resource exploitation, and consumption practices that generate environmental destruction. Foltz et al. (2003) demonstrate that the Islamic intellectual tradition offers extensive resources for developing the relationship between religious teachings and environmental responsibility. Ecotheological education should therefore use Islamic normative sources as a foundation for critical reflection on contemporary ecological problems.

The Urgency of Ecotheological Education in Islamic Higher Education

Islamic higher education institutions occupy a strategic position in the development of ecotheological education because they are responsible for integrating knowledge, religious values, and character formation. In facing the ecological crisis, this responsibility needs to be expanded by cultivating awareness that environmental sustainability is part of religious and humanitarian responsibility. Higher education should not merely produce professionally competent graduates; it must also develop individuals capable of considering the social and ecological consequences of their knowledge and decisions.

This urgency can be understood through three dimensions. First, the theological dimension concerns the need to develop an understanding of Islam that is responsive to environmental problems. Second, the academic dimension concerns the integration of ecological perspectives into the development of knowledge. Third, the social dimension concerns the responsibility of higher education institutions to produce graduates capable of contributing to the resolution of environmental problems. These three dimensions demonstrate that ecotheological education should not be confined to religious instruction but should be developed as a cross-disciplinary perspective.

Begum et al. (2021), in a study involving 413 university students in Pakistan, found a positive relationship between environmental education and environmentally friendly behavior. The study also demonstrated the relevance of environmental responsibility and Islamic values in explaining this relationship. These findings indicate that religious values can serve as a source of motivation for developing ecological behavior. However, because the study employed survey design, its findings cannot be interpreted directly as evidence of a universal causal relationship.

Furthermore, Imron et al. (2025) provide additional empirical evidence from the context of Indonesian higher education. Their study reported differences in several indicators of students'

social and environmental awareness in the context of Islamic Religious Education. These findings strengthen the argument concerning the potential of religious learning to foster social and environmental concern. Nevertheless, survey findings are insufficient to conclude that behavioral changes are entirely caused by Islamic Religious Education courses, since other learning experiences and student characteristics may also exert an influence.

Kadi and Tamam (2025) specifically examined the integration of ecotheology into Islamic religious education in higher education through an interpretive qualitative approach and a multisite design. Their study highlighted the integration of ecotheological values into curricula, the use of project-based and problem-based learning, and the importance of assessing ecological knowledge and behavior. Meanwhile, Afandi and Fuadi (2025) developed a thematic synthesis concerning the integration of environmental theology into an integrative science curriculum. These studies demonstrate the development of ecotheological education research in Islamic higher education, although they employ different approaches and analytical focuses.

Thus, the urgency of ecotheological education lies not merely in the need to add environmental topics to religious instruction. More fundamentally, it is needed to address the gap between religious knowledge, moral awareness, and ecological action. Islamic higher education institutions need to position ecological piety as an orientation for graduate character formation and as part of their institutional contribution to the sustainability of life.

Challenges in Integrating Ecotheology into Islamic Higher Education

Despite its strong theological foundations, the integration of ecotheology into Islamic higher education does not occur automatically. Several conceptual, curricular, pedagogical, and institutional issues require attention. At the conceptual level, one of the main challenges is the tendency to separate environmental problems from the principal concerns of religious discourse. The environment is often treated as an additional issue, while religious learning is more heavily directed toward ritual practices, individual morality, and the mastery of normative knowledge. This separation prevents the relationship between spiritual responsibility and ecological responsibility from being fully understood.

At the curricular level, problems arise when environmental issues have not been systematically integrated into learning outcomes and course structures. Discussions of ecology often depend on individual lecturers' initiatives or programs, resulting in uneven learning experiences among students. Through an analysis of the Indonesian Islamic Religious Education curriculum, Wakhidah and Erman (2022) found that environmental content had appeared in several learning competencies, although its scope and implementation still required strengthening. Although their study focused on primary and secondary education curricula, its findings serve as a reminder that the presence of environmental content in curriculum documents does not automatically guarantee the internalization of ecological behavior.

At the pedagogical level, religious learning is dominated by the delivery of normative material risks producing an understanding disconnected from real-life problems. Students may be able to explain the concept of *khalifah* and the prohibition against environmental destruction, yet remain unable to analyze pollution, water crises, or climate change. This gap demonstrates the need for learning approaches that connect theological knowledge with real experiences and problems. Through a systematic review of environmental education research, Ardoin et al. (2020) found that environmental education can generate cognitive and affective outcomes, whereas conservation outcomes require greater attention to local issues, partnerships, and concrete action.

At the institutional level, challenges emerge when campus policies are not fully consistent with the ecological values being taught. Universities may communicate the importance of environmental protection without having consistent systems for managing waste, energy, water,

and open spaces. Such discrepancies between discourse and practice may weaken the credibility of education. Lozano et al. (2015) demonstrate that implementing sustainable development in higher education requires institutional commitment and implementation involving various organizational dimensions.

Another problem concerns limited cross-disciplinary collaboration. Environmental issues are often regarded as the responsibility of academic departments, even though ecological problems involve theological, scientific, economic, social, legal, and public policy dimensions. Without cross-disciplinary cooperation, ecotheological education risks developing into normative discourse that is insufficiently equipped to explain the complexity of environmental problems.

Accordingly, the development of ecotheological education requires simultaneous paradigmatic change and institutional reform. Integration cannot be achieved merely by adding several environmental topics to religious courses. Connections are needed among curriculum policies, lecturer capacity, learning methods, campus culture, and student participation to ensure that ecotheological education generates more sustainable impacts.

Integrating Ecotheological Education into the Curriculum of Islamic Higher Education

The curriculum is a strategic instrument for integrating theological values and ecological knowledge into the educational process. Such integration can be pursued through intracurricular, cocurricular, and extracurricular approaches. At the intracurricular level, ecotheological material can be integrated into Islamic Religious Education, Islamic ethics, Islamic philosophy, Qur'anic studies, and other courses relevant to each academic discipline.

In Islamic Religious Education courses, for example, discussions of human beings as servants of God and *khalifah* can be connected to the responsibility to protect the environment. The study of *akhlak* (moral character) can be expanded to include ethical conduct toward nature and living beings. Islamic jurisprudence can examine the principles of public benefit, the prevention of harm, and collective responsibility in resource management. Meanwhile, Qur'anic studies can connect verses concerning nature, balance, and the prohibition of destruction with contemporary ecological problems.

Integration should also be pursued through an interdisciplinary approach. Engineering students can examine environmentally friendly technologies based on the principles of public benefit and *amanah*. Economics students can discuss sustainable consumption, the circular economy, and distributive justice in resource allocation. Law students can examine environmental regulations and legal responsibility for ecological damage. Education students can develop learning designs that connect religious values with ecological literacy.

This integration is also consistent with the integrative-interconnective paradigm developed by M. Amin Abdullah (2006), which emphasizes the importance of establishing dialogical relationships among Islamic sciences, natural sciences, social sciences, and the humanities. In the context of ecotheological education, this paradigm enables environmental problems to be examined multidisciplinarily by bringing together revealed foundations, scientific reasoning, philosophical reflection, and ethical responsibility. Thus, the integration of knowledge is not merely an effort to connect academic disciplines but also a foundation for developing knowledge relevant to real-life problems.

At the cocurricular level, higher education institutions can organize seminars, interdisciplinary discussions, public lectures, student research activities, and social projects oriented toward resolving environmental problems. Extracurricular activities, meanwhile, can focus on developing student environmental communities, waste-reduction movements,

conservation initiatives, and responsible-consumption campaigns. All these activities need to be connected to learning objectives so that they do not become merely ceremonial activities.

Curriculum integration must be accompanied by the formulation of measurable learning outcomes. Students should not only be expected to understand the concept of ecotheology but also to analyze environmental problems from an Islamic perspective, formulate alternative solutions, and demonstrate ecological responsibility in academic activities and everyday life. Afandi and Fuadi (2025) offer a synthesis of environmental theology integration into an integrative science curriculum by positioning *tawhid*, *khalifah*, *amanah*, and ecological balance as epistemological foundations. This conceptual contribution can serve as a reference for developing interdisciplinary curricula in Islamic higher education.

Accordingly, an ecotheological education curriculum needs to connect three principal elements: theological knowledge, ecological literacy, and action competence. Theological knowledge provides the foundation of values; ecological literacy enables students to understand the complexity of environmental problems; and action competence allows these values and knowledge to be translated into concrete practices. These three elements need to be designed integratively so that education does not stop at conceptual mastery.

Pedagogical Transformation: From Theological Knowledge to Ecological Action

Ecotheological education requires a pedagogical transformation from an approach focused solely on knowledge transmission toward reflective, participatory, and transformative learning. Students need to do more than know that human beings have responsibilities as *khalifah*. They need to experience, reflect upon, and practice these responsibilities in real-life contexts. Learning thus becomes a process that connects knowledge, values, experience, and action.

One approach that can be developed is problem-based learning. Lecturers can introduce current issues such as river pollution, clean-water crises, waste management, deforestation, or climate change as subjects of inquiry. Students are then asked to analyze these problems from scientific, social, and theological perspectives. The learning process should not end with problem identification but should continue with the formulation of alternative solutions that take environmental concerns, justice, and public benefit into account.

Project-based learning is also relevant. Students can develop projects to reduce plastic waste, utilize organic waste, green the campus, conserve water, or provide environmental education to communities. These projects need to be accompanied by religious reflection so that students understand the relationship between ecological action and spiritual responsibility. In this way, environmental practices do not become technical activities detached from the objectives of religious education.

Reflective approaches are also important for connecting ecological experiences with Islamic values. Activities such as *tadabbur alam* (contemplation of nature), for example, can be developed not merely as recreational activities but as opportunities to understand the order of creation and human responsibility. Such experiences can be followed by academic discussions, reflective writing, and the formulation of action plans. Mezirow's (1991) transformative learning perspective can be used to understand how experience and critical reflection have the potential to change an individual's frame of reference. In the context of ecotheology, this transformation is expected to shift exploitative perspectives toward a more responsible ecological awareness.

It is also important to avoid assuming that every field activity automatically produces behavioral change. Ardoin et al. (2020) demonstrate that environmental education can generate cognitive and affective outcomes, but achieving conservation impacts requires planning,

partnerships, engagement with local issues, and clearly defined actions. Student ecological activities therefore need objectives, indicators, mentoring, and follow-up mechanisms.

Pedagogical transformation also requires changes in assessment systems. Assessment should measure not only conceptual mastery but also analytical ability, the quality of reflection, participation in projects, and group responsibility. Behavioral assessment needs to be conducted proportionately by considering processes and evidence of action rather than relying solely on students' statements. Through this approach, ecotheological learning can connect cognitive, affective, spiritual, and practical dimensions.

Developing an Ecological Campus Culture: The Campus as an Ecotheological Laboratory

Ecotheological education cannot be confined to the classroom. The values being taught need to be reflected in campus policies and everyday practices. Islamic higher education institutions need to develop an ecological campus culture that makes environmental sustainability part of their institutional identity and responsibility. The campus is not merely a place where environmental knowledge is delivered; it is also a space in which the entire academic community can experience and practice ecological values.

The concept of the campus as an ecotheological laboratory positions the campus environment as a learning space that brings together religious values, scientific knowledge, institutional policies, and ecological practices. The principle of *amanah* can be translated into energy and water conservation. The principle of *mizan* can be realized through the management of green open spaces and the preservation of biodiversity. The prohibition of *israf* (extravagance or wastefulness) can be implemented through reducing excessive consumption and limiting the use of disposable products. In this way, theological concepts acquire practical forms that can be observed and evaluated.

An ecological campus can be developed through several policies. First, waste management based on reduction, sorting, reuse, and recycling. Second, energy and water efficiency through technology and behavioral change. Third, the provision of green open spaces and the development of local vegetation. Fourth, the development of low-emission transportation. Fifth, procurement and consumption practices that take environmental impacts into account. These policies need to be supported by clear indicators so that their implementation can be monitored.

An ecological campus culture must involve the entire academic community. University leaders are responsible for establishing policies and allocating resources. Lecturers integrate ecological values into teaching and research. Administrative and support staff facilitate the implementation of operational policies, while students become key actors in various ecological activities. Such participation is important because institutional culture is not formed solely through formal regulations but also through habits and practices carried out consistently.

Lozano et al. (2015) demonstrate that commitment to sustainable development in higher education requires implementation involving multiple institutional dimensions. This means that sustainability cannot be achieved merely through greening activities or temporary environmental campaigns. Higher education institutions need to integrate sustainability principles into governance, curricula, research, procurement, facility management, and community engagement.

Consistency between learning and institutional practices is an important factor in establishing the credibility of ecotheological education. If students are taught to avoid wastefulness while campus management practices themselves generate resource waste, the educational message loses its exemplary force. An ecological campus is therefore not merely a

supporting facility but part of a living curriculum that demonstrates how Islamic values can be embodied in institutional life.

The Role of the Three Pillars of Higher Education in Developing Ecotheological Education

The development of ecotheological education needs to be situated within the framework of the three pillars of higher education: education, research, and community service. These three components provide strategic spaces for developing ecological awareness sustainably. Their integration enables ecotheological education to develop not merely as course content but also as an academic agenda and a form of social contribution by higher education institutions.

In education and teaching, higher education institutions need to integrate ecotheological perspectives into courses, teaching materials, learning methods, and assessment. The development of learning materials can focus on the relationship among *tawhid*, *khalifah*, *amanah*, *mizan*, public benefit, and contemporary environmental problems. Learning also needs to develop students' ability to interpret ecological problems through both religious and scientific perspectives. Ecotheological education can thus cultivate not only moral awareness but also students' ecological literacy and analytical abilities.

In research, lecturers and students can develop studies on Islamic environmental ethics, environmental jurisprudence, pesantren ecotheology, students' ecological behavior, sustainable campus policies, and community-based resource management. Research can also focus on developing appropriate technologies and social innovations that support environmental conservation. Islamic higher education institutions need to encourage collaboration between Islamic studies and other academic disciplines so that ecotheological research does not become trapped in normative discussions but produces knowledge relevant to community needs.

In community service, higher education institutions can collaborate with schools, Islamic boarding schools (*pesantren*), religious communities, local governments, and civil society organizations. Community engagement programs may include mosque-based environmental education, community waste management, water-source conservation, greening initiatives, sustainable agriculture, and the strengthening of circular economies. Religious approaches can serve as a source of motivation for community participation because ecological values are connected to moral and spiritual responsibility.

Experiences of faith-based conservation in Indonesia demonstrate the importance of involving religious communities in environmental protection. McKay et al. (2014) examined faith-based approaches to conservation in Indonesia and showed the potential of religious teachings as a means of promoting conservation. Irawan (2022) also discussed environmental conservation practices in the context of pesantren, Sufism, and religious life in Indonesia. Both studies provide a basis for Islamic higher education institutions to develop partnerships with religious institutions and local communities.

The integration of the three pillars enables the formation of a cycle of knowledge development and action. Learning generates questions and academic competencies; research produces findings and innovations; and community service applies and tests the relevance of knowledge in social contexts. Experience gained through community service can subsequently become sources of learning and new research agendas. This cycle strengthens the social relevance of Islamic higher education in addressing the ecological crisis.

A Conceptual Model of Integrative Ecotheological Education in Islamic Higher Education

Based on the conceptual synthesis presented above, ecotheological education in Islamic higher education can be developed through an integrative model connecting theological

foundations, ethical orientations, educational processes, institutional support, and ecological transformation. This model assumes that ecological awareness is not formed merely through the transmission of knowledge; it also requires the internalization of values, reflective experiences, and sustained action.

The first component is the theological foundation, which encompasses *tawhid*, *khalifah*, *amanah*, *mizan*, justice, and the prohibition of *fasad fi al-ardh*. This foundation provides spiritual and moral orientation for the entire educational process. The second component is the orientation toward ecological ethics, which includes responsibility, simplicity, intergenerational justice, concern for living beings, and sustainability. This component serves as a bridge between theological teachings and behavioral principles that can be applied in everyday life.

The third component is the integrative educational process, which encompasses curricula, transformative learning, research, and community service. At this stage, theological values and ecological ethics are translated into learning outcomes, academic experiences, and practical activities. The fourth component is institutional support, including sustainable campus policies, leadership, infrastructure, funding, and participation by the academic community. The fifth component is the outcome of ecological transformation, which is expected to be reflected in increased ecological literacy, changes in attitudes, moral responsibility, environmentally friendly behavior, and contributions to community sustainability.

These five components are not rigidly linear. The theological foundation provides the basis of values; ethical orientation translates those values into behavioral principles; and the educational process develops competencies and experiences. Institutional support creates an environment that enables these values to be practiced. The outcomes of transformation subsequently provide a basis for evaluating and improving the entire process. The model should therefore be understood as a dynamic and mutually influencing system.

Students are positioned as active subjects within this model. They do not merely receive learning materials but also participate in problem identification, analysis, reflection, and ecological action. Lecturers act as facilitators, academic mentors, and role models of ecological behavior. University leaders are responsible for establishing policies that support consistency between educational values and institutional practices. Meanwhile, communities become partners in learning, research, and community service. Conceptually, the integrative ecotheological education model can be formulated as follows:



Figure 1: An Integrative Framework of Ecotheological Education in Islamic Higher Education

The contribution of this model lies in connecting theological, pedagogical, and institutional dimensions within a single educational framework. However, the model cannot yet

be considered empirically proven to be effective because this study is conceptual in nature. Empirical research is required to test the suitability of each component, the relationships among the components, and the indicators of success across different Islamic higher education contexts.

Strategies for Implementing and Evaluating Ecotheological Education

The implementation of ecotheological education requires a gradual and sustainable strategy. The first stage involves strengthening institutional commitment through policies that explicitly position environmental sustainability as part of the vision and mission of the higher education institution. This commitment needs to be translated into strategic plans, academic policies, facility management, and campus development programs. Without institutional support, ecotheological education risks depending on individual initiatives and may be difficult to sustain in the long term.

The second stage is curriculum mapping. Higher education institutions need to identify courses related to environmental issues and determine opportunities for integrating ecotheological values. This mapping should consider the characteristics of each study program, graduate learning outcomes, and the competencies to be developed. This stage is important to ensure that integration is not implemented sporadically or through the mere addition of environmental terminology to learning documents.

The third stage involves enhancing the capacity of lecturers and administrative staff. Lecturers need an understanding of ecotheological concepts, environmental ethics, sustainable education, and transformative learning methods. Capacity building can be conducted through training, academic discussions, curriculum workshops, and interdisciplinary collaboration. Administrative staff also need to be involved because campus environmental policies are closely related to facility management and institutional services.

The fourth stage is the development of learning programs and ecological practices. These programs may include student projects, collaborative research, conservation activities, waste management, energy conservation, and community service. Activities need to be designed with measurable objectives, indicators, designated responsibilities, and clear follow-up mechanisms. Ardoin et al. (2020) emphasizes the importance of connecting environmental education with local issues, partnerships, and action so that learning outcomes do not remain limited to knowledge and attitudes.

The fifth stage is evaluation and continuous development. The evaluation of ecotheological education needs to cover input, process, output, and impact. Input aspects include policies, resources, and lecturer readiness. Process aspects encompass curriculum integration, learning quality, and student participation. Output aspects include improvements in ecological knowledge, attitudes, and skills. Meanwhile, impact can be assessed through behavioral changes and contributions to environmental management.

Evaluation should employ a combination of instruments, such as curriculum document analysis, student reflections, project assessments, behavioral surveys, campus environmental audits, and activity documentation. Using diverse instruments can reduce the tendency to assess success solely on the basis of the number of activities or expressions of concern. Assessment also needs to distinguish between changes in knowledge, attitudes, behavior, and ecological impact, since these four dimensions do not necessarily change simultaneously.

Implementation strategies need to consider the characteristics and capacities of each higher education institution. Campuses with limited resources can begin with simple programs, such as reducing single-use plastics, sorting waste, and integrating environmental material into learning. These programs can then be developed gradually in accordance with institutional

capacity. A gradual approach is more realistic than setting ambitious targets unsupported by adequate resources and implementation mechanisms.

Ecotheological Education and the Sustainable Development Agenda

Ecotheological education is relevant to the sustainable development agenda because it connects environmental sustainability with moral responsibility, social justice, and spiritual values. Sustainable development should not be understood merely as a set of development targets; it also requires changes in societal paradigms and behavior. In this context, ecotheological education can enrich education for sustainable development by incorporating theological and religious ethical dimensions.

The contribution of ecotheological education can be connected to several Sustainable Development Goals. First, quality education can be advanced through learning that integrates ecological literacy and religious values. Second, responsible consumption and production can be supported by cultivating simple, efficient, and non-excessive patterns of behavior. Third, climate action can be promoted by strengthening students' knowledge and participation in mitigation and adaptation activities. Fourth, life on land can be supported through conservation, greening initiatives, and biodiversity protection.

UNESCO (2020) emphasizes the importance of education for sustainable development as a means of building the knowledge, skills, values, and actions necessary to support sustainability. Ecotheological education can enrich this approach by incorporating spiritual and religious ethical dimensions. Ecological responsibility is understood not merely as a requirement of global policies but also as part of human responsibility toward God and life. Such integration enables Islamic higher education institutions to develop approaches to sustainability that are relevant to their institutional identities and intellectual traditions.

Ecotheological education also needs to strengthen the dimension of environmental justice. Environmental destruction often affects communities unequally, particularly those with limited economic resources and restricted access to resources. Ecological concern should therefore extend beyond cleanliness campaigns and greening activities to address the distribution of environmental risks, communities' rights to a healthy environment, and intergenerational responsibility. Gade (2023) highlights the importance of rights and justice perspectives in the development of Muslim environmental ethics.

Islamic higher education institutions can advance these contributions through research and community engagement oriented toward resolving environmental problems in society. Collaboration with governments, local communities, pesantren, and civil society organizations can broaden the impact of ecotheological education. Academic activities can focus on mapping ecological problems, developing social innovations, and strengthening community capacity in resource management.

Thus, ecotheological education can serve as a bridge between Islamic values and the sustainable development agenda. Its contribution is not to replace scientific approaches or environmental policies but to strengthen their moral foundations and encourage community participation. Such integration is important to ensure that sustainability is understood not merely as an administrative target but also as an ethical orientation for collective life.

Ecotheological Education and the Transformation of Civilization

Ecotheological education is related to efforts to reconstruct the orientation of civilization. The ecological crisis demonstrates that advances in science, technology, and the economy do not always correspond with the sustainability of life. When progress is measured solely in terms of

material growth and the capacity to control resources, moral dimensions and ecological responsibility risk being neglected. The transformation of civilization therefore requires a paradigm of progress that positions sustainability, justice, and respect for life as essential measures of success.

From an Islamic perspective, the development of civilization should not separate material progress from spiritual and ethical responsibility. The concept of human beings as *khalifah* demands a balance between the utilization of resources and the preservation of life. Human beings certainly possess the capacity to develop science and technology, but these capacities need to be directed toward the common good. Technologies that increase production while simultaneously generating substantial ecological damage need to be evaluated in accordance with the principles of justice and sustainability.

The transformation of civilization requires a transformation of awareness. Human beings need to move away from exploitative thinking toward a worldview that recognizes the interconnectedness and interdependence of all life. Nature should not be understood merely as a commodity but as part of the order of creation that must be protected. This awareness needs to be embodied in more responsible patterns of consumption, production, policymaking, and social relations. Within this framework, ecotheology provides a moral foundation for evaluating not only the economic benefits derived from nature but also how those benefits are distributed and what consequences they have for the continuity of life.

Islamic higher education institutions have an important role in this transformation because they are spaces for shaping the intellectual, moral, and leadership capacities of younger generations. Ecotheological education can help students develop the ability to connect knowledge with values and faith with social action. Students are expected to become not only competent professionals but also responsible members of society who possess ecological awareness and can make decisions by considering environmental impacts.

The transformation of civilization also requires changes at institutional and societal levels. Islamic higher education institutions need to establish partnerships with pesantren, religious communities, government agencies, and civil society organizations to expand sustainability practices. Experiences of faith-based conservation in Indonesia demonstrate that religious values can serve as a source of social mobilization for environmental protection (McKay et al., 2014). Ecotheological education can therefore contribute to building social networks that connect academic knowledge with collective action.

Ecotheological education is part of the renewal of Islamic educational orientations in responding to the challenges of contemporary civilization. Its objective is not merely to produce individuals who know religious teachings about nature but to cultivate people who make these values the basis of their decisions and actions. Ecological piety becomes one manifestation of religious commitment to the continuity of life. Through this approach, Islamic higher education institutions can contribute to building a civilization that is not only intellectually and materially advanced but also just, ethical, and sustainable.

Conclusion (خاتمة)

Ecotheological education has strategic relevance for the development of Islamic higher education amid the increasing complexity of the ecological crisis. Islam provides strong theological and ethical foundations through the principles of *tawhid*, *khalifah*, *amanah*, *mizan*, justice, and the prohibition of destruction on earth. These principles demonstrate that environmental protection is not merely a technical issue or social obligation but part of human moral and spiritual responsibility.

The development of ecotheological education needs to be pursued integratively through curriculum reconstruction, pedagogical transformation, the strengthening of an ecological campus culture, and the optimization of the three pillars of higher education. Such integration must connect theological knowledge with ecological literacy and concrete action. Islamic higher education institutions also need to ensure consistency between the values taught in the learning process and their institutional management policies.

The conceptual model proposed in this article connects Islamic theological foundations, ecological ethical orientation, integrative educational processes, institutional support, and the transformation of ecological awareness and action. This model can serve as an initial framework for developing ecotheological education policies and practices in Islamic higher education institutions. However, because this study is conceptual in nature, empirical research is needed to test its implementation across different institutional contexts.

Furthermore, ecotheological education needs to be understood as part of the renewal of Islamic educational orientations in responding to the challenges of contemporary civilization. Educational success should not be measured solely by mastery of knowledge and professional competencies but also by the ability to build a just, balanced, and sustainable society. Through ecotheological education, Islamic higher education institutions are expected to strengthen the relationship among faith, knowledge, social responsibility, and concern for all creation.

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