

Mainstreaming Islamic Ecotheology through Participatory Action Research: Restoring Santri's Environmental Awareness in an Indonesian Pesantren

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Abstract

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Islamic Ecotheology;
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Environmental degradation and the increasing frequency of ecological disasters highlight the urgency of integrating religious values into environmental awareness initiatives. Islamic ecotheology offers a theological framework that emphasizes human responsibility as khalifat Allāh fī al-ard (stewards of the earth). This study aims to examine the process and outcomes of mainstreaming Islamic ecotheology in restoring santri's environmental awareness at Pondok Pesantren Sumber Pendidikan Mental Agama Allah (SPMAA), Lamongan, Indonesia. Employing a qualitative approach with a Participatory Action Research (PAR) design, this study involved pesantren stakeholders, santri, and the surrounding community through focus group discussions, educational sessions, media campaigns, and collective environmental actions. The findings indicate that the participatory internalization of Islamic ecotheological values successfully enhanced santri's ecological awareness, both conceptually and practically. This process resulted in the formulation of green fiqh concepts, the implementation of green da'wah through digital media, and concrete environmental actions within the pesantren. The study contributes to Islamic educational discourse by demonstrating that participatory-based ecotheological approaches can effectively position pesantren as agents of environmental transformation and disaster awareness within grassroots communities.

Abstrak

Kata kunci:
Ekoteologi Islam;
Kesadaran
lingkungan;
Participatory Action
Research; Pesantren;
santri

Degradasi lingkungan dan meningkatnya frekuensi bencana ekologis menuntut integrasi nilai-nilai keagamaan dalam upaya membangun kesadaran lingkungan. Ekoteologi Islam menawarkan kerangka teologis yang menegaskan tanggung jawab manusia sebagai khalifat Allāh fī al-ard (pemelihara bumi). Penelitian ini bertujuan untuk menganalisis proses dan hasil pengarusutamaan ekoteologi Islam dalam membangun kembali kesadaran lingkungan santri di Pondok Pesantren Sumber Pendidikan Mental Agama Allah (SPMAA) Lamongan. Penelitian ini menggunakan pendekatan kualitatif dengan desain Participatory Action Research (PAR) yang melibatkan pengasuh pesantren, santri, dan masyarakat sekitar melalui diskusi kelompok terarah, edukasi lingkungan, kampanye media, serta aksi kolektif berbasis lingkungan. Hasil penelitian menunjukkan bahwa internalisasi nilai-nilai ekoteologi Islam secara partisipatif mampu meningkatkan kesadaran ekologis santri, baik pada tataran konseptual maupun praksis. Proses ini menghasilkan perumusan konsep fiqh hijau, pengembangan dakwah hijau melalui media digital, serta implementasi aksi lingkungan di dalam pesantren. Penelitian ini berkontribusi pada kajian pendidikan Islam dengan menunjukkan bahwa pendekatan ekoteologi berbasis partisipasi efektif dalam memposisikan pesantren sebagai agen transformasi lingkungan dan kesadaran kebencanaan di tingkat komunitas.

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INTRODUCTION

Environmental degradation and climate-related disasters have become critical global issues, threatening ecological sustainability and human survival. Recent reports indicate a significant increase in the frequency and intensity of hydrometeorological disasters, particularly in developing countries with high environmental vulnerability (UNEP, 2024). In Indonesia, data from the National Disaster Management Agency show that more than 90% of disaster events are environmentally driven, indicating that most disasters are not purely natural but structurally linked to ecological damage (BNPB, 2024). This condition underscores the urgency of strengthening environmental awareness as a preventive and transformative strategy.

Islamic teachings provide a strong ethical foundation for environmental preservation. The Qur'an and Hadith emphasize harmony between humans and nature, positioning environmental care as a religious obligation. Concepts such as *khalīfat Allāh fī al-ard* frame humans as trustees responsible for safeguarding the earth. However, despite the richness of Islamic ecological values, the practical internalization of these teachings within Muslim communities remains limited. Scholars argue that contemporary environmental crises are rooted not only in technical failures but also in ethical and spiritual disorientation (Nasr, 1996; Mangunjaya, 2024).

Previous studies on Islam and the environment have largely focused on normative theological discourse or descriptive analyses of eco-friendly initiatives within religious institutions, including pesantren (Maghfur, 2010; Khitam, 2016; Aulia, 2017). While these studies contribute valuable insights, they often lack participatory and transformative dimensions that actively engage community members as agents of change. In particular, empirical research employing Participatory Action Research (PAR) to internalize ecotheological values among santri through structured interventions remains scarce.

This study addresses this gap by examining how participatory ecotheological interventions can restore environmental awareness among santri and position pesantren as active drivers of disaster awareness. Unlike previous research, this study integrates Islamic ecotheology with a deep ecology perspective through a qualitative Participatory Action Research design, enabling collaborative learning, reflection, and action within the pesantren community.

Accordingly, this research aims to analyze the process and outcomes of mainstreaming Islamic ecotheology at Pondok Pesantren Sumber Pendidikan Mental Agama Allah (SPMAA) in Lamongan. Specifically, it seeks to demonstrate how participatory processes can enhance santri's ecological awareness and strengthen the role of pesantren as grassroots institutions in environmental resilience and disaster awareness.

METHOD

The community-based research entitled *Restoration of Students' Awareness in Mainstreaming Ecotheology at Pondok Pesantren Sumber Pendidikan Mental Agama Allah (SPMAA) Lamongan Toward a Disaster-Awareness Driven Pesantren* employs a qualitative approach using a Participatory Action Research (PAR) design. This research was conducted at Pondok Pesantren Sumber Pendidikan Mental Agama Allah (SPMAA), Turi, Lamongan, East Java, Indonesia, over a period of several months to allow for iterative participatory cycles. According to Lewin (1990), as cited in Afandi (2013), participatory action research is a form of research, development, and program implementation characterized by the active participation, involvement, and engagement of target groups throughout the research process.

In this study, the target community includes pesantren stakeholders (caretakers, teachers, and administrators), students (*santri*), and the surrounding society of PP. SPMAA Lamongan. The main driving forces of the program were the Santana (*Santri Tanggap Bencana - Disaster-Responsive Students*) and Sandirga (*Santri Dirgantara - Aerospace Students*) initiatives. These groups functioned not only as program implementers but also as research participants who actively contributed to planning, reflection, and evaluation processes. The implementation of PAR in this study aimed to internalize environmental awareness and ecological movement through a deep ecology framework grounded in pesantren values.

Data collection was carried out through multiple qualitative techniques, including participatory observation, Focus Group Discussions (FGDs), informal and semi-structured interviews, and documentation analysis. FGDs were conducted at each stage of the PAR cycle to capture participants' perceptions, reflections, and changes in understanding related to Islamic ecotheology and environmental responsibility. Participatory observation enabled the researcher to document behavioral changes and collective actions undertaken by the *santri*, while documentation—such as posters, policy drafts, digital content, and activity reports—served as supporting data.

Based on the participatory action research framework, this study followed three main stages:

Planning Stage. At this stage, the researcher, referring to a deep ecology model rooted in pesantren values, collaboratively designed the program framework using a participatory approach. This stage involved caretakers, teachers, administrators, students, and members of the surrounding community of PP. SPMAA Lamongan. Planned actions included policy formulation, socialization of ecological values, program implementation design, and the establishment of evaluation indicators.

Action Stage. In this stage, the researcher, in collaboration with the *Komunitas Santri Penggerak Islam Hijau (KSPIH - Green Islamic Student Activist Community)*, implemented the planned programs through a series of activities. These included brainstorming sessions with stakeholders, formation of target groups and role assignments, educational and training sessions on Islamic ecotheology, green fiqh, and

environmental ethics, as well as mentoring and facilitation during environmental campaigns and direct ecological actions within and around the pesantren.

Evaluation Stage. The final stage consisted of a joint evaluation process involving the researcher, stakeholders, and program implementers through Focus Group Discussions (FGDs). This stage aimed to reflect on the effectiveness of the actions undertaken, identify changes in participants' environmental awareness, and assess the sustainability of the initiatives. The evaluation process also included the dissemination of program outcomes to relevant parties, particularly in relation to the initiative of developing a "disaster-responsive pesantren."

Data analysis was conducted using thematic analysis following the interactive model proposed by Miles, Huberman, and Saldaña, which consists of data reduction, data display, and conclusion drawing. Through this process, patterns of change in awareness, attitudes, and practices related to Islamic ecotheology and environmental responsibility were identified and interpreted.

Indicators of change in this study included: (1) increased conceptual understanding of Islamic ecotheology among santri; (2) active participation in ecological and disaster-awareness activities; and (3) the production of intellectual and digital outputs such as green fiqh concepts, posters, and online da'wah content. These indicators were used to assess the restoration of environmental awareness among santri within the participatory research process.

A detailed overview of the action plan, target groups, and expected outputs of this community-based research is presented in Table 1.

Table 1. Action Plan, Targets, and Outputs of Community-Based Research at PP. SPMAA Lamongan

No	Action Plan	Targets and Approach	Outputs
1	Formulating policies related to students' understanding in mainstreaming ecotheology at PP. SPMAA Lamongan	Caretakers, teachers, administrators, students, and the surrounding community of PP. SPMAA Lamongan using FGD instruments	Policy document
2	Disseminating policies related to students' understanding in mainstreaming ecotheology at PP. SPMAA Lamongan	Caretakers, teachers, administrators, students, and the surrounding community of PP. SPMAA Lamongan through media publication and FGDs	Pamphlets and intellectual outputs (articles and posters)
3	Implementing policies related to students' understanding in mainstreaming ecotheology at PP. SPMAA Lamongan	Caretakers, teachers, administrators, students, and the surrounding community of PP. SPMAA Lamongan through education, media	Volunteers/activists for ecotheology mainstreaming engaged in environmental actions (<i>green force</i>)

campaigns, and direct
actions

FINDINGS AND DISCUSSION

This study reveals that prior to the participatory intervention, environmental awareness among santri at PP. SPMAA predominantly existed at a normative-theological level. Although caretakers and students acknowledged the Islamic obligation to protect nature as part of their role as *khalīfat Allāh fī al-ard*, such understanding had not yet been translated into structured educational programs or collective ecological practices. This condition reflects a gap between doctrinal knowledge and lived environmental ethics, a pattern also identified in previous studies on Islamic educational institutions (Saniotis, 2024). The absence of systematic ecological programming indicates that religious values alone are insufficient without participatory mechanisms that facilitate internalization and action.

To address this condition, a series of participatory interventions were implemented using a qualitative Participatory Action Research (PAR) framework grounded in ecotheological and deep ecology perspectives. The overall process and its observed outcomes are summarized in Table 2.

Table 2. PAR-Based Ecotheological Intervention and Observed Outcomes at PP. SPMAA

Intervention Focus	Forms of Activities	Key Actors Involved	Observed Outcomes
Initial Condition Assessment	Observation and in-depth interviews	Researcher, pesantren caretakers, santri	Environmental awareness remained normative and unsystematic
Strengthening Green Awareness	FGDs, value internalization on cleanliness and water conservation	Researcher, santri, administrators, teachers	Increased cognitive awareness of ecological responsibility as religious duty
Conceptualization of Green Fiqh	Collaborative formulation of eco-jurisprudential materials	Researcher, administrators, teachers	Shared conceptual framework linking Islamic law and environmental ethics
Green Da'wah Dissemination	Social media campaigns, posters, sermon texts (Santana Movement)	Santri, KSPIH, researcher	Extension of ecological awareness beyond pesantren community
Implementation of Green Actions	Waste management, cleaning activities, water conservation	Santri, teachers, pesantren community	Observable behavioral shift toward applied Islamic environmental ethics
Collective Evaluation and Reflection	Focus Group Discussion (FGD)	Researcher, stakeholders, santri	Strengthened collective commitment to sustainability and disaster awareness

The first significant outcome of the intervention was the strengthening of green awareness among santri through participatory discussions and reflective learning. Environmental practices such as cleanliness and water conservation, which were previously performed as routine activities, began to be understood as integral components of religious responsibility. This shift from habitual action to reflective awareness supports recent findings that value-based environmental education grounded in religious narratives enhances moral engagement with ecological issues (Kula & Yilmaz, 2024).

Building upon this awareness, the formulation of Green Fiqh marked a conceptual transformation within the pesantren. Ecological practices were no longer perceived merely as ethical recommendations but were reframed as part of Islamic jurisprudential responsibility. This integration of fiqh discourse with environmental ethics aligns with contemporary scholarship emphasizing the role of Green Fiqh as a bridge between classical Islamic legal reasoning and modern ecological challenges (Fauzi & Nugraha, 2024). The collaborative nature of this formulation process further reinforced ownership and acceptance among pesantren stakeholders.

Another important outcome was the extension of ecological consciousness through Green Da'wah conducted via social media under the Santana Movement. By disseminating eco-theological messages through digital platforms, santri became active agents of environmental advocacy beyond the pesantren. This finding confirms recent studies highlighting digital da'wah as an effective medium for promoting ecological awareness within Muslim communities (Huda et al., 2025). The integration of Qur'anic cosmology, particularly the concept of *al-Qur'an al-tadwīnī* and *al-Qur'an al-takwīnī*, strengthened the theological legitimacy of these messages and connected environmental responsibility with Islamic spirituality.

The implementation of Green Actions within the pesantren environment represents the most tangible indicator of behavioral change resulting from the intervention. Practices such as waste management, environmental cleaning, and water conservation demonstrate a transition from symbolic religiosity to applied Islamic environmental ethics. This transformation resonates with Chishti's (2003) concept of the community of life, in which humans, as vicegerents of God, bear responsibility for maintaining balance among all forms of existence. Similar patterns have been observed in empirical studies on faith-based ecological movements that emphasize praxis as a key indicator of internalized ecological ethics (Sarker & Islam, 2024).

Overall, the findings indicate that participatory ecotheological interventions grounded in pesantren values are effective in restoring environmental awareness among santri and positioning pesantren as active agents of ecological and disaster awareness. The integration of PAR, ecotheology, and deep ecology not only facilitates cognitive understanding but also fosters collective action and sustainable behavioral change within the pesantren community.

According to Chishti (2003: 78), the Qur'an provides clear guidance regarding the relationship between humans and non-human beings, emphasizing the idea of mutual interdependence as a unified community of life. This community of life on earth must be managed by humankind because "He it is who has made you vicegerents upon the earth..." (Q.S. al-An'ām [6]: 165). The moral and spiritual burden of humans as *khalifah* (vicegerents) on earth necessarily gives rise to an imperative for environmental ethics in Islam.

As Allah's representatives on earth, each individual is in fact responsible for the preservation and care of the broader community of life including humans, plants, animals, and even non-living entities rather than exploiting or destroying them. In this context, Chishti affirms that every creature within the community of life, regardless of its utilitarian value to humans, possesses intrinsic worth. Therefore, humans as *khalifah* are truly obliged to balance their own needs with those of other communities and species that fall under their responsibility and stewardship.

The observed green actions at PP. SPMAA such as waste management, environmental cleaning, and water conservation indicate an initial but significant transition from symbolic religiosity toward applied Islamic environmental ethics, a pattern consistent with recent empirical studies on faith-based ecological movements (Sarker & Islam, 2024).

Analysis of Change Actions Toward a Disaster Awareness-Driven Pesantren

For non-religious environmental activists, religion particularly Western religions (including Islam) are often viewed as one of the doctrinal factors contributing to or exacerbating the ongoing ecological crisis. It cannot be denied that Abrahamic religions appear to infuse a worldview (*weltanschauung*) asserting that all of God's creations on earth are dedicated specifically to humankind, as humans are considered the image of God (*imago Dei*) and Allah's vicegerents on earth (*khalifat Allāh fi al-ard*). This assumption can lead to a superficial and reckless understanding that all natural entities on earth may be exploited arbitrarily. From this notion arises the accusation that religion itself constitutes one of the root causes of the ecological crisis. Such critiques have gained renewed traction in contemporary environmental humanities, particularly within secular ecological discourse that associates anthropocentrism with ecological degradation (Taylor, 2023; Taylor & Van Wieren, 2024).

Fortunately, such accusations have been actively and systematically refuted by religious scholars who possess deep concern for the environment. A thorough reexamination of theological doctrines that seem to support anti-ecological anthropocentrism has revealed that religion, in fact, neither justifies nor encourages environmental exploitation. In this context, the concept of *khalifah* in Islam actually underscores the moral and spiritual responsibility of Muslims before Allah to protect and preserve the natural environment. Thus, the term *Islamic ecotheology* serves as a conceptual canopy guiding Muslims in understanding and managing their relationship not only with God but also with nature. Recent scholarship confirms that Islamic

ecotheology reframes human centrality not as domination, but as ethical stewardship embedded within divine accountability (Sanjotis, 2024; Kula, 2023; Khoiriyah et al., 2024).

In light of Islamic ecotheology, pesantren in Indonesia serve as concrete institutions due to their complete modalities in both scientific and communal practice. By recontextualizing theology (*kalām*) through an ecological perspective, religious values deeply rooted in the consciousness of Muslims in general and santri (students) in particular can be mobilized to address the ecological disasters threatening the continuity of the ecosphere. The Ministry of Religious Affairs (Kemenag) records that, as of April 2022, there were 26,975 pesantren spread throughout Indonesia (Kemenag n.d.). In this context, there is no doubt that pesantren, in terms of quantity, hold immense potential to advocate for Islamic ecotheology. Although not all pesantren explicitly implement ecotheology whether at the conceptual or practical level there are several that have actively contributed to advancing Islamic ecological movements. This empirical reality aligns with recent Indonesian studies emphasizing pesantren as key actors in faith-based environmental governance (Fauzi & Nugraha, 2024; Aulia & Hidayat, 2023).

The religiosity embedded in pesantren life derived directly from the Qur'an, Hadith, and *al-turāth al-islāmiyyah* can serve as a solid foundation for developing an Islamic ecotheological paradigm that fosters communal environmental awareness within the pesantren. Inevitably, when faced with global issues, particularly environmental ones, pesantren are compelled to expand their scope by initiating social and ecological transformations rooted in Islamic doctrine itself. Through this participatory research, PP. SPMAA, which is ecologically based near a river, has been motivated to take part in mainstreaming green consciousness among the community. Given its strong mastery of Islamic sciences and openness to technological advancement (via its website and social media platforms), PP. SPMAA was expected to actively respond to global ecological challenges and cultivate environmental awareness among its members. This expectation resonates with global findings that digitally engaged religious institutions tend to be more effective in ecological advocacy (Huda et al., 2025; Sarker et al., 2023).

PP. SPMAA, which already maintains several traditions closely related to environmental sustainability such as *ro'an* (communal cleaning), *isrāf* (avoiding wastefulness), and reforestation within the pesantren area can begin to anchor these practices in Qur'anic and prophetic teachings. As previously noted from various interviews, the environmental awareness of PP. SPMAA students had not been fully awakened or directed toward ecological consciousness. Although they participated practically in maintaining cleanliness within the pesantren and its surroundings, their efforts were not consciously or systematically grounded in Islamic ecological doctrines. In other words, PP. SPMAA had not yet engaged *consciously* either theoretically or practically in responding to the global ecological crisis confronting humanity. This condition reflects what recent studies identify as "ritualized environmentalism," where

practices exist without theological-ecological reflexivity (Sarker & Islam, 2024; Koehrsen, 2023).

Through this participatory research aimed at mainstreaming Islamic ecotheology, PP. SPMAA has begun to realize and take active steps to directly respond to the ongoing ecological crisis. From the first FGD, students, administrators, and teachers began to recognize the reality of the global ecological crisis and the vital role pesantren must play in addressing it. Previously, PP. SPMAA had neither recognized the existence of the ecological crisis nor understood its own central function as a pesantren capable of engaging both theoretically and practically in mobilizing Islamic communities to confront ecological challenges. This awareness shift constitutes a crucial transformative outcome of the PAR process.

Subsequently, in the second FGD, all participants worked to formulate the concept of *fiqh hijau* (green jurisprudence), which serves as a foundational framework for ecological engagement. This stage was only possible after the PP. SPMAA community had developed ecological awareness and intentionality toward environmental issues. Without such consciousness, formulating a conceptual framework grounded in humanity's grand theological project and in thematic interpretations of classical Islamic texts (*turāth*) would have been impossible. Therefore, this participatory research successfully functioned as a catalyst in awakening PP. SPMAA's awareness of its essential role as a pesantren and its recognition of Islam as an environmentally friendly religion in responding to the ecological crisis affecting the earth and humankind.

Through the formulation of *fiqh hijau* and *tasawuf hijau* (green Sufism), PP. SPMAA has come to deeply understand that Islam is inherently rich with ecological teachings such as prohibitions against polluting the environment or carelessly discarding waste, especially into rivers, which form the ecological core of PP. SPMAA's surrounding area. These findings corroborate recent arguments that Islamic spirituality, when contextualized ecologically, can generate sustainable environmental ethics (Koehrsen & Huber, 2024).

The mainstreaming of Islamic ecotheology at PP. SPMAA can be said to have been substantially successful, as seen from the indicators that have been achieved both internally and externally (such as preaching through social media). At the conceptual level, the students have realized their central role as *khalifah* (vicegerents of God on earth) to care for the surrounding environment; while at the practical level, the students have actively participated in ecological activities such as cleaning the environment, managing waste, and reforestation now carried out with a "green awareness" that nature or the surrounding environment is God's creation that must be cared for and preserved, not neglected or even destroyed.

Meanwhile, the effort to mainstream Islamic ecotheology which was initially designed to delve deeper into the *deep ecology* model, namely the awareness that the first principle of biocentric egalitarianism is that all living beings have equal intrinsic value has not yet found its momentum (Naess 1973, 23). Considering that the subjects at PP. SPMAA themselves previously did not yet possess a fully anchored ecological

awareness, it was almost impossible to internalize *deep ecology*, which was originally designed to conceptually shift the domain of Islamic ecotheology that still appeared anthropocentric toward biocentric or even ecocentric perspectives. This limitation indicates that deep ecology should be understood as a long-term transformative horizon rather than an immediate outcome.

Arne Næss, the originator of the term *deep ecology*, contrasted his new “deep” or “radical” ecological worldview with the then-dominant paradigm of “shallow ecology.” According to Næss, the worldview of *shallow ecology* was merely an extension of anthropocentrism. In other words, *deep ecology* questions the fundamental assumptions of anthropocentrism by digging deeper into the ontological level (Keller, 2009: 206). Næss's objection to the mainstream ecological movement at that time lay in its anthropocentric principle which inevitably presupposed a hierarchy of values among the entities within the ecosphere, a critique that later resonated strongly within religious and ethical discourses on ecology, including Islamic environmental thought (Hitzhusen & Tucker, 2024).

In the context of Islam, this anthropocentric principle is, *grosso modo*, reflected in the concept or role of *khalifah*. In this regard, it can be seen that, in facing the ecological crisis, Islamic theology, which was previously understood *sensu stricto* as highly anthropocentric or even anti-ecological, can actually be re-read, re-evaluated, and reinterpreted so that, *ab intra*, it becomes a primary manual for injecting ecological consciousness into the Muslim community, particularly through emerging interpretations of Islamic jurisprudence and ethics that emphasize stewardship, responsibility, and sustainability (Zainuddin, 2020; Fauzi & Nugraha, 2024).

It cannot be denied that some critics indeed consider such anthropocentrism to be counterproductive or even detrimental to environmental conservation efforts that must be carried out. In Islamic ecological discourse, the term “anthropocentrism” is often overlapped with the term *khalifah*, which, as a result, in the ecological domain, renders the meaning of *khalifah* somewhat ambiguous; on one hand, it seems to signify a privileged subject entitled to exploit nature arbitrarily, while on the other hand, it implies being the sole bearer of responsibility for environmental destruction, a tension that has been critically examined within contemporary discussions on Islamic environmental governance and ethics (Fauzi & Nugraha, 2024).

To avoid this ambiguity, a concrete question can be raised: “Must the concept of *khalifah* always lead to anthropocentrism with all its negative implications for environmental preservation?” If the answer can be negative, then Islamic ecotheology can, in this case, move more realistically in portraying the Islamic cosmological worldview, which spans a spectrum in which non-human entities occupy a different yet significant degree of importance compared to humans, aligning with Qur'anic-based ecotheological perspectives that emphasize balance (*mīzān*) and the moral status of creation beyond humanity alone (Zainuddin, 2020).

Regardless of this rather slippery theoretical polemic, it is important to note that the concept of *khalifah*, as elaborated in the previous chapters and during the FGDs, is

understood as a subject entrusted by Allah to play a role in protecting and preserving life and the environment on earth, a view increasingly supported by interdisciplinary dialogues between religion, ecology, and sustainability studies (Hitzhusen & Tucker, 2024). Through *deep ecology*, Næss perceives the intrinsic value inherent in every entity within the ecosphere. In Næss's own words, "The equal right to live and flourish is an intuitively clear axiomatic value." Simply put, all organisms and entities in the ecosphere, as an interconnected web of life, possess ontologically equal intrinsic value (Naess 1989, 92).

In the light of Islamic ecotheology, the intrinsic value of nature or all non-human existents can be derived from a commonly understood concept—that, *sensu lato*, the Qur'an exists in two forms: *al-Qur'an al-tadwini* (the codified sacred scripture) and *al-Qur'an al-takwini* (the cosmic sacred scripture). The latter term elucidates that all entities in the cosmos are also *ayat-ayat Allah* (signs of God, *vestigia Dei*). In other words, everything that exists in nature constitutes the signs of Allah, which, *in toto*, possess intrinsic value within them. Hence, humankind, as *khalifah* (vicegerents) on earth, bears the responsibility to preserve, sustain, and refrain from destroying it.

In summary, humans as *khalifah* carry the obligation to balance their own needs with those of other living communities or species under their care. In this latter sense, although still at an initial stage, PP. SPMAA has begun to take active steps to engage and participate grounded in knowledge distilled from "The Three Great Projects of Humanity" and a communal base in which the pesantren serves as one of the Islamic educational institutions that directly connects with the grassroots.

CONCLUSION

This study reveals an important finding that was only identifiable through participatory engagement: although santri at PP. SPMAA had previously practiced activities related to environmental preservation, these actions were largely routine and pragmatic, lacking conscious theological orientation. Through a Participatory Action Research approach, this study demonstrates that participatory ecotheological interventions function as a catalyst that transforms routine environmental practices into reflective and value-driven actions grounded in Islamic teachings. This finding challenges the assumption that religious norms automatically translate into ecological awareness without structured participatory processes.

From an academic perspective, this study contributes to the field of Islamic ecotheology and environmental education by extending previous research through empirical evidence derived from a qualitative PAR framework. While earlier studies largely emphasized normative discourse or descriptive case studies, this research introduces an integrative model that combines ecotheology, deep ecology, and participatory praxis within a pesantren context. The findings enrich existing perspectives by demonstrating that pesantren-based ecological transformation is most effective when theological reflection is combined with collective action and community involvement.

Nevertheless, this study has several limitations. The research was conducted in a single pesantren with a specific socio-ecological context, involving a limited number of participants and lacking variation in age, gender, and institutional typology. In addition, the qualitative PAR approach emphasizes depth rather than generalizability. Future studies are therefore encouraged to involve broader samples, diverse pesantren models, and longitudinal designs to further examine the sustainability of ecotheological internalization and its implications for environmental policy and disaster awareness initiatives.

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