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Islamic Values and Environmental Conservation in Indonesia: A Literature Review

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Abstract. *Islamic teachings are increasingly mobilized to address environmental degradation in Indonesia, home to the world's largest Muslim population, yet research on this topic remains fragmented across institutions and disciplines. This review maps research trends, identifies the values and actors driving environmental practices, and explains how these values become action. From a Scopus search (30 October 2026), 14 articles published in 2023–2026 were purposively selected against explicit criteria and analyzed through thematic synthesis. The reviewed studies peak in 2024 and concentrate on pesantren (8 of 14 studies), single-site qualitative designs, and Java. The values of khalifah (stewardship), amanah (trust), and mizan (balance), grounded in tawhid (divine unity), form the normative core, carried mainly by kiai, pesantren communities, fatwa institutions, Islamic mass organizations, and local movements. Six mechanisms link values to practice: normative legitimacy, pedagogical integration, exemplary modelling and habituation, institutional programs, creative local adaptation, and personal religiosity. Practice-embedded mechanisms draw on 11 of 14 studies, whereas fatwa-based legitimation is documented only doctrinally; because no study compared mechanisms or measured outcomes, this contrast is tentative, not a causal ranking. Fragmented programs, unequal resources, the ambivalent role of religion, and weak outcome evidence constrain these pathways. Integrating Islamic ecotheology and lived religion, the review proposes a values–mechanisms–outputs framework in which institutions bridge teachings and action. Documented outcomes are local — eco-pesantren programs, forest and spring conservation, and coastal adaptation — whereas contributions to SDG 4 (quality education), SDG 12 (responsible consumption), SDG 13 (climate action), and SDG 15 (life on land) remain proposed pathways awaiting outcome evaluation.*

Keywords: *Islamic Ecotheology; Environmental Fatwa; Eco-Pesantren; Lived Religion; Pro-Environmental Behavior*

1. Introduction

The intensifying environmental crisis has prompted scholars and policymakers to look beyond technological and regulatory solutions toward the values that shape how societies treat nature (1,2). Religion has re-entered this conversation as a source of moral motivation, collective identity, and institutional reach that can mobilize wider communities for environmental action (3). Earlier critics argued that religious worldviews legitimized human domination over nature (4). More recent scholarship, however, shows that religious traditions can reframe ecological responsibility as a spiritual obligation that complements secular sustainability strategies (5,6). In Islam, this reframing rests on a coherent set of principles — *tawhid* (the unity of God and creation), *khalifah* (human stewardship or vicegerency on earth),

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amanah (trust), and *mizan* (balance)—that make the protection of nature part of religious observance rather than an optional addition (2,5,7).

Indonesia, home to the world's largest Muslim population, has become an important locus for translating these principles into practice. Environmental engagement grounded in Islamic values is now visible in Islamic boarding schools (*pesantren*), mosques, fatwa institutions, and Islamic mass organizations (7,8). Pesantren have been documented as agents of forest conservation that integrate *qauliyah* (revealed) and *kauniyah* (cosmic) verses into their curricula (8), as sites of ecopedagogy and Qur'an-based ecological learning (9,10), and as communities in which ecological piety is nurtured through daily routines and the example of the *kiai* (11,12). At the level of religious authority, the Indonesian Ulema Council (Majelis Ulama Indonesia, MUI) has issued a series of environment-related fatwas that legal scholars characterize as a progressive juridical response to climate change (13); this series culminated in Fatwa No. 86 of 2023 on the Law of Controlling Global Climate Change, which addresses the climate crisis directly (14). Mass organizations play complementary roles: Nahdlatul Ulama (NU) emphasizes greening and waste management, whereas Muhammadiyah prioritizes environmental education and renewable energy (7).

Despite this momentum, the application of Islamic environmental values faces challenges from both inside and outside religious communities. Internally, normative teachings do not automatically translate into consistent behavior. Islamic religiosity has been associated with greater environmental knowledge and a healthier, more sustainable lifestyle among Indonesian Muslim consumers (15), but cross-national evidence indicates that the relationship between religiosity and environmental preferences is nonlinear and depends on the dimension of religiosity involved (16). Muslim environmental activism also tends to be concentrated in relatively small groups of activists, so its influence on the everyday practices of the wider community remains unclear (3). Externally, faith-based environmental initiatives unfold amid resource constraints, contested local politics, and accelerating ecological pressures, such as flooding and coastal abrasion, that test the adaptive capacity of Muslim communities (6,17).

Expressions of Islamic environmentalism also vary across contexts. Global and Middle Eastern scholarship generally discusses Islamic environmental ethics at a conceptual level, for example by rethinking sustainable development through an Islamic worldview (18). In Indonesia, by contrast, the discourse is closely tied to institutions with strong moral authority and grassroots reach, including pesantren, mosques, fatwa councils, and community movements (7,11). Here, Islamic values are not only interpreted but also improvised and combined with local wisdom and customary systems to produce new environmental practices (6,19). Consequently, Indonesia-focused studies in internationally indexed journals have developed along several streams: eco-pesantren and Islamic education (2,12,20), Islamic law and fatwas (13), Qur'anic reception (21), community and organizational action (7,19), and green consumer behavior (15).

This rapid growth, however, has produced fragmented knowledge. Most studies examine a single dimension—an environmental program, the management of one institution, or a theological concept—and therefore do not explain how ethical principles, pedagogy, and institutional governance are interconnected (2). Existing reviews have not resolved this fragmentation. Some are global and not grounded in Indonesia's institutional landscape (18); others focus on a single institutional form, such as the eco-pesantren (2), or treat religion broadly as lived practice across faiths, with data ending in 2022 (6). Moreover, a substantial

body of Indonesia-focused work has appeared in internationally indexed journals since 2023, after the period covered by Smith et al. (6). To date, no study has synthesized the most recent Scopus-indexed literature that specifically addresses Islamic values and the environment in Indonesia.

A further gap concerns mechanisms. The literature agrees that Islamic teachings can motivate environmental responsibility, yet the specific pathways through which normative values are translated into institutional programs, and then into individual and collective behavior, remain understudied (2). Clarifying these pathways matters because pesantren, mosques, and fatwa institutions differ in authority, resources, and audiences; values that succeed in one setting may fail in another (11). Identifying the actors, values, and mechanisms that recur across contexts therefore provides a structured foundation for designing faith-based environmental interventions.

This review is guided by two complementary perspectives. The first, Islamic ecotheology, supplies the normative content—*tawhid*, *khalifah*, *amanah*, and *mizan*—that frames environmental protection as a religious obligation (5). The second, lived religion, directs attention to how people and institutions creatively adapt doctrine in everyday practice according to local conditions (6). Combining the two allows the review to move beyond describing what Islam teaches about nature toward explaining how these teachings are institutionalized and enacted. Accordingly, the review addresses three review questions (RQs):

RQ1 – What are the publication trends, research contexts, and methodological approaches of Scopus-indexed studies (2023–2026) on Islamic values and the environment in Indonesia?

RQ2 – Which Islamic values, actors, and institutions have been identified as driving environmental practices in Indonesia?

RQ3 – Through which mechanisms are Islamic environmental values translated into institutional programs and into individual and collective pro-environmental behavior, and which barriers constrain them?

Indonesia is the focus of this review for three reasons. First, it has the world's largest Muslim population and a dense network of religious institutions with strong moral authority, making it a natural laboratory for religion-based environmentalism (7). Second, Indonesia is on the front line of environmental crises, from deforestation to coastal flooding, which gives practical urgency to the question of whether value-based approaches work (17). Third, Islamic institutions in Indonesia have generated distinctive innovations—ecological fatwas, eco-pesantren, and organizational environmental programs—that have not been adequately synthesized, even though they may be relevant to other Muslim-majority countries (8,13).

By reviewing the most recent Scopus-indexed literature, this study makes three contributions. Theoretically, it combines Islamic ecotheology with the lived religion perspective to propose a framework linking the values, actors, and mechanisms of Islamic environmentalism. Empirically, it maps an internationally indexed literature on Indonesia that remains fragmented across religious studies, education, and environmental science. Practically, it offers evidence-informed insights for religious leaders, educators, and policymakers seeking to engage religious communities with the Sustainable Development Goals (SDGs), particularly SDG 4 (quality education), SDG 12 (responsible consumption and production), SDG 13 (climate action), and SDG 15 (life on land).

2. Methods

2.1. Review design

This study adopts a literature review design, which collects and synthesizes previous research to provide an overview of a research area and to identify patterns and gaps across studies (22). An integrative approach was chosen because research on Islamic values and the environment in Indonesia is growing rapidly but is dispersed across institutions, disciplines, and languages, so that findings must be read together to be connected (2). Consistent with this design, the review does not aim at an exhaustive census of all publications; instead, it purposively selects information-rich studies that allow the relationships between values, actors, and mechanisms to be examined in depth (22). To make the selection traceable, the search terms, selection criteria, and characteristics of every included study are reported explicitly.

2.2. Search and purposive selection

The Scopus database was searched on 30 October 2026. Scopus was selected because it indexes internationally reputable journals with rigorous peer review, which improves the quality and traceability of sources. The search combined the terms "Islamic ecotheology", "eco-pesantren", "pesantren", "green fatwa", "Islamic environmental ethics", and "eco-mosque" with "environment" and "Indonesia" in the title, abstract, and keyword fields, and the results were limited to journal articles published from 2023 to 2026. Because terminology in this field varies widely (for example, studies on religiosity, fatwas, or religious movements do not always use the word *ecotheology*), the search was supplemented by backward and forward citation tracking of relevant articles.

Studies were then selected purposively using four criteria: (a) peer-reviewed articles published between 2023 and 2026 in a journal indexed in Scopus; (b) an explicit link between Islamic values, teachings, actors, or institutions and environmental issues, practices, or behaviors; (c) findings specific to Indonesia; and (d) availability of the full text. Studies were excluded if they examined Muslim populations without Indonesia-specific findings, mentioned religion only as a background variable, or were conference papers, book chapters, or editorials. Within these criteria, selection aimed at variation across the main institutional arenas of Islamic environmentalism—pesantren and education, mass organizations and communities, Islamic law, and individual behavior—so that each arena identified in the literature was represented. This process resulted in 14 included studies, whose characteristics are presented in Table 1. Other relevant works—fatwa documents, international reviews, and foundational studies on religion and ecology—were used only to frame and interpret the findings and were not part of the synthesized corpus.

Table 1. Characteristics of the included studies (n = 14)

Study	Year	Journal	Setting and focus	Design
Widodo (2)	2026	Studia Ecologiae et Bioethicae	Eco-pesantren model, Indonesia	Conceptual (library research)
Smith et al. (6)	2024	Global Environmental Change	208 environmental social movements, Indonesia	Framework synthesis of 244 studies
Mustofa et al. (7)	2025	Problemy Ekorozwoju	NU and Muhammadiyah climate programs, several provinces	Qualitative
Subaidi et al. (8)	2023	Fudan Journal of the Humanities and Social Sciences	Al-Ittifaq pesantren and eco-pesantren community, West Java	Qualitative case study
Karman et al. (9)	2023	Jurnal Pendidikan Islam	Biharul Ulum Agroecology Pesantren, Bogor	Qualitative ethnography
Maslani et al. (10)	2023	Jurnal Pendidikan Islam	Pesantren in Bogor and Garut	Ethnography
Aulia et al. (11)	2024	International Journal of Evaluation and Research in Education	Eco-pesantren modelling techniques	Qualitative case study
Wijaya Mulya & Salvi (12)	2024	Pedagogy, Culture & Society	Ath-Thaariq eco-pesantren, Garut	Qualitative case study
Harnowo & Habib (13)	2024	Ahkam: Jurnal Ilmu Syariah	MUI fatwas on climate change	Normative legal analysis
Mursid (15)	2024	Journal of Islamic Marketing	Muslim consumers (n = 308)	Quantitative survey
Pratisti et al. (17)	2024	Worldviews	Muslim communities, northern coast of Java	Qualitative
Maksum et al. (19)	2023	Ethics in Science and Environmental Politics	Spring protection movement, Batu, East Java	Qualitative participatory interviews
Purnomo et al. (20)	2024	Revista de Gestão Social e Ambiental	Pesantren environmental education and community empowerment	Qualitative case study
Karman et al. (21)	2025	Ulumuna	Qur'anic reception, Biharul Ulum Agroecology Pesantren, Bogor	Qualitative

2.3. Data extraction and synthesis

The included studies were analyzed through thematic synthesis (23), informed by the principles of thematic analysis (24). For each study, a standardized extraction form recorded bibliographic details, research context, design, Islamic values invoked, actors, mechanisms, reported outputs, and constraints. The synthesis proceeded in three stages. First, the findings of each study were coded inductively, line by line. Second, related codes were grouped into descriptive themes that remained close to the primary studies. Third, the descriptive themes were developed into analytical themes—the six mechanisms and four barriers reported in Section 3.3—by asking how values become practices and what impedes them; these themes were refined iteratively by returning to the source texts. Islamic ecotheology and lived religion guided this interpretive step: the former identified the normative content of Islamic environmental teachings, and the latter showed how these teachings are adapted in everyday practice (6).

To distinguish recurring empirical patterns from the authors' interpretation, each analytical theme was recorded in an evidence matrix (Table 4) listing its supporting studies, their designs, and its evidential status. A theme was classified as a *recurring pattern* when it

was reported in at least two included studies, at least one of which was empirical; as *tentative* when it rested on a single study or mainly on conceptual work; and as *interpretive* when it was a cross-study inference made by the authors rather than a finding reported by any individual study. No formal quality appraisal was conducted; instead, study design was recorded so that conclusions could be weighted by the type of evidence. Because this study analyzes published literature only and involves no human or animal participants, ethical approval was not required.

3. Results and Discussion

3.1. Overview of the reviewed literature (RQ1)

Within the reviewed corpus, publications peaked in 2024. Of the 14 included studies, four were published in 2023, seven in 2024, two in 2025, and one in 2026. The studies appear in journals ranging from religious studies and Islamic education, such as *Worldviews* (17), *Ahkam* (13), and *Ulumuna* (21), to environmental science and sustainability, such as *Global Environmental Change* (6), *Ethics in Science and Environmental Politics* (19), and *Problemy Ekorozwoju* (7).

As shown in Table 2, the literature is concentrated on pesantren and Islamic education, which account for 8 of the 14 studies. Studies of communities, organizations, and movements form the second-largest group (four studies), whereas Islamic law and fatwas, and individual consumer behavior, are each represented by a single study (13,15).

Table 2. Research contexts of the included studies (n = 14)

Context	n	Studies
Pesantren and Islamic education	8	Widodo (2); Subaidi et al. (8); Karman et al. (9); Maslani et al. (10); Aulia et al. (11); Wijaya Mulya & Salvi (12); Purnomo et al. (20); Karman et al. (21)
Communities, organizations, and movements	4	Smith et al. (6); Mustofa et al. (7); Pratisti et al. (17); Maksum et al. (19)
Islamic law and fatwas	1	Harnowo & Habib (13)
Consumers and individual behavior	1	Mursid (15)

Methodologically, qualitative field research predominates. Ten studies used case-study, ethnographic, or interview designs, generally in one or a small number of pesantren or communities. Two studies were normative or conceptual analyses: an analysis of MUI's climate-related fatwas (13) and a conceptual framework for the eco-pesantren (2). Only one study used a quantitative survey (15), and one was a framework synthesis of 244 empirical studies on 208 environmental social movements in Indonesia (6).

Geographically, field research is concentrated in Java. Reported sites include pesantren in West Java (8–10,12,21), springs in Batu, East Java (19), and villages on the northern coast of Java (17). Among the studies whose sites could be verified, only Mustofa et al. (7) extended fieldwork beyond Java, to East Kalimantan and South Sulawesi. The dominant theoretical lens is Islamic ecotheology, occasionally combined with liberation theology (9), lived religion (6), or a whole-institution approach to sustainability education (2).

3.2. Islamic values, actors, and institutions (RQ2)

Three values recur across the reviewed literature as the normative core of Islamic environmentalism in Indonesia—*khalifah*, *amanah*, and *mizan* (2,7)—with *tawhid* as their theological foundation (5). These values operate at two levels. At the cosmological level,

tawhid and *mizan* frame nature as a system created and balanced by God. At the ethical–behavioral level, *khalifah* and *amanah* translate this order into a human obligation to protect nature and avoid excess (*israf*), reinforced by the belief that environmental destruction will be accounted for in the hereafter (7).

Beyond this core, several studies draw on more specific sources. Studies of Islamic law show how fatwas translate these values into morally binding legal categories (13). Other studies combine Qur'anic learning with liberation theology to address ecological and social problems (9), or trace how pesantren residents receive Qur'anic verses as encouragement for environmental conservation (21).

These values are carried by diverse actors (Table 3). Religious authorities and institutions dominate the literature. The kiai emerges as a key actor in pesantren because his conduct serves as a model that legitimizes environmental programs (2,11). Fatwa institutions provide normative legitimacy at the national level (13), while mass organizations specialize in different domains (7). By contrast, evidence on individual Muslims comes from a single consumer survey (15).

Table 3. Actors and their roles in Islamic environmentalism in Indonesia

Actor	Main role	Studies
Kiai and pesantren leaders	Serve as role models; legitimize and direct environmental programs	Widodo (2); Aulia et al. (11); Wijaya Mulya & Salvi (12)
Santri and pesantren communities	Enact ecological values through daily routines and learning	Karman et al. (9); Maslani et al. (10); Karman et al. (21)
Ulama and fatwa institutions	Provide normative legitimacy by defining environmental damage in Islamic legal terms	Harnowo & Habib (13)
Islamic mass organizations	Run programs: NU on greening and waste; Muhammadiyah on education and renewable energy	Mustofa et al. (7)
Local communities and movements	Combine religion with local traditions to protect resources and adapt to environmental change	Smith et al. (6); Pratisti et al. (17); Maksum et al. (19)
Muslim consumers	Translate religiosity into environmental knowledge and sustainable lifestyles	Mursid (15)

3.3. Mechanisms and barriers (RQ3)

The thematic synthesis identified six mechanisms that translate Islamic values into environmental practices and four barriers that constrain them. Table 4 links each theme to its supporting studies and indicates whether it represents a recurring empirical pattern, a tentative finding, or an interpretive inference by the authors. Five mechanisms are recurring patterns supported by several studies, although normative legitimacy is documented at the level of doctrine and law rather than behavior; personal religiosity rests on a single survey and is therefore tentative.

Table 4. Evidence matrix linking mechanisms and barriers to the included studies

Theme	Supporting studies	k	Evidence base	Status
Mechanisms				
Normative legitimacy	(7,13,21)	3	Legal-normative analysis (1); qualitative field studies (2)	Recurring pattern (doctrinal level); behavioral effect not examined
Pedagogical integration	(2,8–10,20)	5	Qualitative field studies (4); conceptual study (1)	Recurring pattern
Exemplary modelling and habituation	(2,11,12)	3	Qualitative field studies (2); conceptual study (1)	Recurring pattern
Institutional programs and partnerships	(2,7,8,20)	4	Qualitative field studies (3); conceptual study (1)	Recurring pattern
Creative local adaptation	(6,17,19)	3	Framework synthesis (1); qualitative field studies (2)	Recurring pattern
Personal religiosity	(15)	1	Cross-sectional survey (1)	Tentative (single study)
Barriers				
Fragmented initiatives	(2)	1	Conceptual study (1)	Tentative
Unequal resources and capacity	(2)	1	Conceptual study (1)	Tentative
Ambivalent role of religion	(6,17)	2	Framework synthesis (1); qualitative field study (1)	Recurring pattern
Weak outcome evidence	All included studies (Table 1)	14	Review-level appraisal of study designs	Interpretive (authors' appraisal)

k = number of included studies supporting the theme. Status categories are defined in Section 2.3.

Normative legitimacy. Fatwas and Qur'anic interpretation reframe environmental damage as a religious issue. Harnowo and Habib (13) show that MUI's fatwas progressively incorporated environmental concerns, while noting that, at the time of their analysis, no fatwa yet addressed climate change as its central issue. Fatwa No. 86 of 2023 subsequently did so, declaring activities that aggravate the climate crisis to be *haram* and obliging mitigation and adaptation efforts (14). At the everyday level, Qur'anic reception among pesantren residents extends this legitimacy, as environmental verses are understood as an encouragement to conserve nature (21), and Muslim organizations frame climate action in terms of *khalifah* and *amanah* (7).

Pedagogical integration. Pesantren embed ecological values in Qur'anic learning and ecopedagogy. At the Biharul Ulum Agroecology Pesantren in Bogor, ecotheology-based Qur'anic learning shaped students' environmental practices and helped address local social problems (9). Comparable integration appears in an ethnographic study of pesantren in Bogor and Garut (10), in the integration of *qauliyah* and *kauniyah* verses within a forest-conservation curriculum (8), in environmental education linked to community empowerment (20), and, conceptually, in proposals for a green curriculum and green learning (2).

Exemplary modelling and habituation. Values are internalized more through example and routine than through formal instruction. Aulia et al. (11) identified four modelling channels: the kiai as a personal role model, infrastructure and its use, governance systems, and pesantren culture. Agricultural routines and communal daily life play a similar role at the Ath-Thaariq eco-pesantren (12), and the conceptual eco-pesantren model likewise emphasizes habituation through everyday green activities (2).

Institutional programs and partnerships. Environmental values become durable when they are organized into programs and partnerships. Pesantren have built a forest-conservation movement through community alliances (8) and have combined environmental education with community empowerment (20). At the organizational level, NU and Muhammadiyah divide roles across greening, waste management, education, and renewable energy (7), and the whole-institution eco-pesantren model links such programs to institutional management (2).

Creative local adaptation. In local communities, Islamic values are blended with customary practices, local wisdom, and rituals. Drawing on 244 empirical studies of 208 environmental social movements, Smith et al. (6) show how grassroots movements use lived religion to create new environmental practices. In Batu, communities mobilized ecotheological values and cultural capital to resist development that threatened their springs (19), and on the northern coast of Java, Muslim communities combine religious interpretations and rituals with strategies for adapting to flooding and abrasion (17).

Personal religiosity. At the individual level, Islamic religiosity is positively associated with environmental knowledge and a lifestyle of health and sustainability among Indonesian Muslim consumers (15). Because this mechanism rests on a single cross-sectional survey, it is treated as tentative.

The reviewed literature also points to four barriers. First, environmental initiatives are often fragmented because they are run as stand-alone programs rather than integrated with curricula, pedagogy, and governance (2). Second, disparities in resources, organizational capacity, and infrastructure create gaps between normative ideals and institutional realities (2); because both barriers derive mainly from conceptual work, they are treated as tentative. Third, the role of religion is ambivalent: religious practices can both support and hinder coastal adaptation (17), and strong opposition can increase the vulnerability of religious environmental movements (6). Fourth, evidence on outcomes is weak. This last barrier is an interpretive judgment drawn from the designs of the included studies: most are single-site qualitative studies that describe outputs, and none measures environmental or behavioral change over time (Tables 1 and 4).

Figure 1 integrates these findings into a values–mechanisms–outputs framework. Islamic values become environmental practices through the six mechanisms, whose reported outputs appear at the institutional, community, and individual levels, while the four barriers constrain each pathway. The arrows represent pathways proposed by this synthesis rather than causal relationships tested in the included studies.

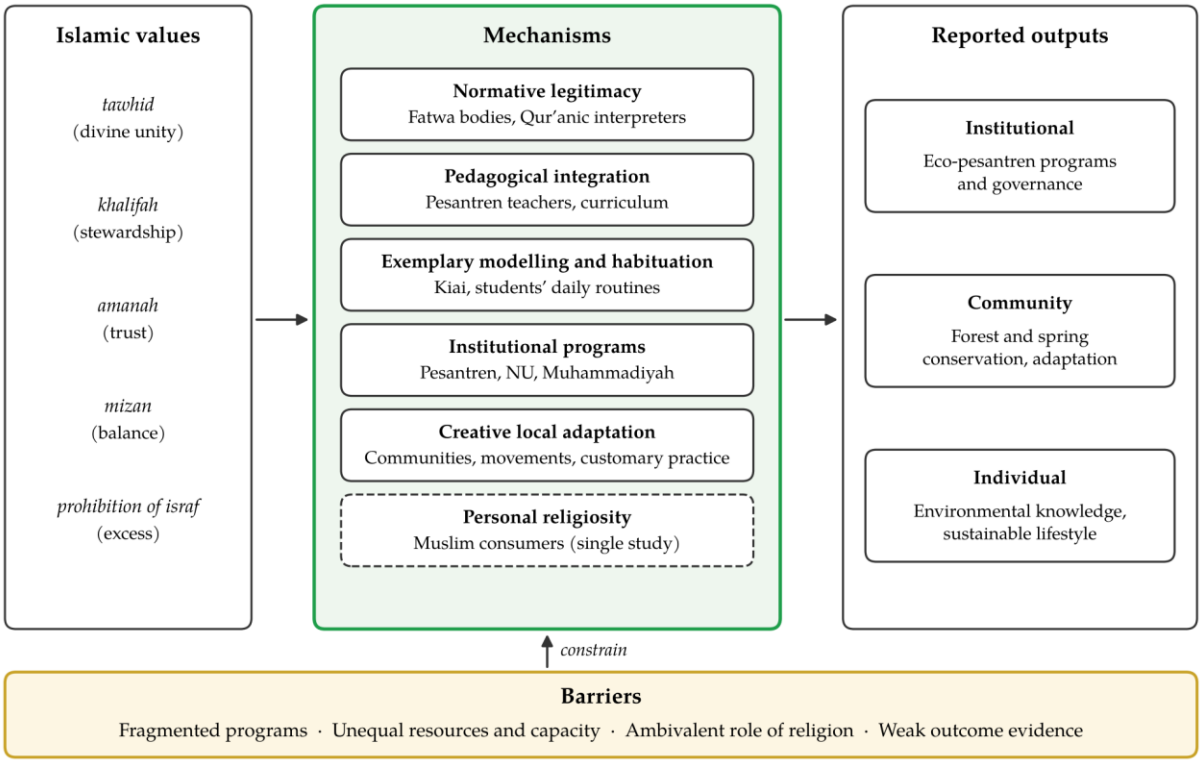


Figure 1. Values–mechanisms–outputs framework of Islamic environmentalism in Indonesia. Solid borders indicate mechanisms supported by two or more included studies; the dashed border indicates a mechanism supported by a single study. Arrows denote proposed, untested pathways.

3.4. Discussion of key findings

This review set out to map how Islamic values shape environmental practices in Indonesia and through which mechanisms. The findings suggest that Islamic environmentalism in Indonesia is less a doctrinal question than an institutional one. Values such as *tawhid*, *khalifah*, *amanah*, and *mizan* are widely endorsed, but they become environmental practices only when institutions—pesantren, fatwa bodies, mass organizations, and local communities—carry them through identifiable mechanisms.

The first notable finding is the strong concentration of research on pesantren, which account for 8 of the 14 studies. This concentration is understandable because pesantren combine moral authority, communal life, and daily routines, making them well suited to cultivating ecological habits (2,11). It also reveals blind spots. None of the reviewed studies focuses on mosques, households, or urban Muslim communities, and evidence on individual Muslims rests on a single survey (15). The field's picture of Islamic environmentalism is therefore largely a picture of pesantren environmentalism.

Second, practice-embedded mechanisms—pedagogical integration, exemplary modelling and habituation, institutional programs, and creative local adaptation—are documented through observations of everyday practice in 11 of the 14 studies, whereas legitimation through fatwas is documented mainly at the level of doctrine and law (6,11–13) (Table 4). This pattern is consistent with the view that Muslim environmentalism rests on both social and religious foundations (5), and it offers a partial response to Koehrsen's concern (3) that Muslim environmental activism remains confined to small groups of activists: environmental values appear to spread most readily when they are woven into the routines

of existing religious communities rather than promoted as separate campaigns. This interpretation should nonetheless be treated as tentative. The included studies did not compare mechanisms, most used single-site qualitative designs, and none measured outcomes over time; the greater visibility of practice-embedded mechanisms may therefore partly reflect the predominance of ethnographic research on pesantren rather than greater effectiveness. The finding indicates where evidence is concentrated, not a demonstrated causal ranking of mechanisms.

Third, the review reveals a gap between normative ambition and evidence of implementation. MUI's environmental fatwas have been assessed as a progressive juridical response to climate change (13), yet none of the included studies examined whether these fatwas, including Fatwa No. 86 of 2023 (14), changed Muslims' behavior. Similarly, the assumption that religiosity fosters pro-environmental behavior was tested by only one Indonesian study (15). Cross-national evidence cautions against assuming a simple relationship, as the influence of religiosity on environmental preferences appears nonlinear and dependent on the dimension of religiosity involved (16).

Fourth, the role of religion is ambivalent. Religious practices both support and hinder coastal adaptation on the northern coast of Java (17), and strong opposition increases the vulnerability of religious environmental movements (6). These findings counsel caution both against the long-standing critique that religion legitimizes domination over nature (4) and against narratives that portray religion as inherently pro-environmental. They are consistent with reviews that describe the influence of religion on climate action as diverse rather than uniformly positive (3).

Finally, compared with previous reviews, this review shifts the focus from what Islam teaches about the environment to how these teachings work in practice. Global reviews generally synthesize Islamic environmental ethics at a conceptual level by rethinking sustainable development through an Islamic worldview (18). The Indonesian literature complements such reviews because it is tied to specific institutions and local contexts and thus provides empirical material on implementation that conceptual reviews rarely contain.

3.5. Theoretical implications

This review makes three theoretical contributions. First, by combining Islamic ecotheology with the lived religion perspective, it proposes a values–mechanisms–outputs framework (Figure 1). Ecotheology explains what motivates environmental responsibility—the principles of *tawhid*, *khalifah*, *amanah*, and *mizan*—whereas lived religion explains how these principles are practiced through example, habituation, and creative adaptation to local conditions (6). The framework positions institutions as an intermediary layer between values and outputs, a role that neither perspective captures fully on its own. Because it is derived from a small and predominantly qualitative evidence base, the framework should be read as a set of testable propositions rather than as an empirically validated model.

Second, the review shows that this integration has not yet been achieved within the literature itself. Normative studies of fatwas and empirical studies of pesantren and communities largely proceed independently: normative studies formulate obligations without tracing their application, whereas empirical studies document practices without systematically linking them to specific doctrines. Integrative proposals such as the whole-institution eco-pesantren model (2) point toward closer integration but have not been tested empirically.

Third, the review sharpens how religious authority is theorized in religion-based environmentalism. The evidence suggests that authority operates through two distinct channels. Formal authority, exercised by fatwa institutions, defines what religion requires (13). Exemplary authority, embodied by the kiai, demonstrates how these obligations are fulfilled in daily life (11). The literature has so far examined these channels separately; the framework proposes, as a hypothesis for future research, that environmental change is most likely when the two operate together.

3.6. Practical implications

The synthesized practices relate to several SDGs, but the strength of the evidence differs across them. Documented outcomes include eco-pesantren curricula and learning (SDG 4), forest and spring conservation (SDG 15), and community adaptation to flooding and coastal abrasion, which is relevant to the resilience targets of SDG 13 (8,9,17,19). Evidence for SDG 12 comes only from an association between religiosity and sustainable lifestyles in one survey (15). Contributions at scale—for example, emission reductions attributable to Fatwa No. 86 of 2023 or measurable biodiversity gains—remain proposed rather than documented. With this caveat, the findings offer practical guidance for four stakeholder groups.

Pesantren leaders. Environmental initiatives are more likely to endure when they are integrated into curricula, learning, daily routines, and governance rather than run as stand-alone programs (2). Pesantren leaders should therefore embed ecological values in the institution's vision and routines. Because the kiai's conduct is a principal channel of value transmission, visible leadership commitment—in resource use, waste management, and agricultural practices—matters as much as formal teaching (11).

Religious authorities and mass organizations. Fatwas build legitimacy but do not automatically change behavior. MUI, NU, and Muhammadiyah can connect ecological fatwas to implementation channels by using pesantren networks and organizational programs to translate fatwas into concrete routines (7). Simple monitoring within these programs would also help close the evidence gap identified in this review.

Policymakers. Government agencies responsible for religious affairs, education, and the environment can treat faith-based institutions as partners in pursuing SDGs 4, 12, 13, and 15. Support should extend beyond the Java-based institutions that currently dominate both initiatives and research, and funding schemes could include an evaluation component so that effective models can be identified and replicated.

Environmental NGOs and communicators. Islamic framing can make environmental messages more resonant for Muslim audiences because fatwas and religious teachings carry strong moral authority in Indonesia (7,13). Campaigns are likely to be more effective when they are connected to local religious practices and traditions, which the literature identifies as a major source of creative environmental action (6).

3.7. Future research agenda

The gaps identified in this review point to six priorities for future research, which are summarized in Table 5.

Table 5. Research agenda for Islamic environmentalism in Indonesia

Gap	Evidence from this review	Suggested research
Weak outcome evidence	Most empirical studies report qualitative outputs from a single site	Longitudinal and mixed-methods designs that measure environmental and behavioral outcomes over time
Disconnect between norms and practice	No included study traced how ecological fatwas are applied in behavior	Implementation studies of Fatwa No. 86 of 2023 in pesantren, mosques, and communities
Narrow institutional scope	Eight of the 14 studies focused on pesantren; none examined mosques or households	Studies of mosques, Islamic higher education institutions, households, and urban Muslim communities
Thin individual-level evidence	Only one survey of Muslim consumers and one study of fatwas	Large-sample surveys of how different dimensions of religiosity relate to pro-environmental behavior, including nonlinear effects
Geographical concentration	Verified research sites are mostly in Java	Comparative research in Kalimantan, Sulawesi, Sumatra, and eastern Indonesia
Ambivalent role of religion	Religion can both support and hinder adaptation; movements face opposition	Studies of conservative interpretations, intra-community contestation, and the conditions under which religion inhibits environmental action

4. Conclusion

This review synthesized recent Scopus-indexed research (2023–2026) on Islamic values and the environment in Indonesia to answer three review questions. Four conclusions follow.

First, regarding RQ1, the reviewed research is recent but uneven. Within the corpus, publications peaked in 2024, and the literature is concentrated on pesantren, dominated by single-site qualitative studies, and focused geographically on Java. Mosques, households, urban Muslims, and regions outside Java remain largely unstudied.

Second, regarding RQ2, a shared set of Islamic values—*khalifah*, *amanah*, and *mizan*, grounded in *tawhid*—forms the normative core of Islamic environmentalism in Indonesia. These values are carried mainly by religious authorities and institutions: kiai and pesantren communities, fatwa institutions, Islamic mass organizations, and local religious movements.

Third, regarding RQ3, values become practices through six mechanisms: normative legitimacy, pedagogical integration, exemplary modelling and habituation, institutional programs, creative local adaptation, and personal religiosity. Practice-embedded mechanisms are the most extensively documented, whereas fatwa-based legitimation is documented mainly at the doctrinal level; the evidence does not, however, permit mechanisms to be ranked by effectiveness. These mechanisms are constrained by fragmented programs, unequal resources, the ambivalent role of religion, and weak outcome evidence.

Fourth, by integrating Islamic ecotheology and lived religion, this review proposes a values–mechanisms–outputs framework that positions institutions as the bridge between Islamic teachings and environmental action. The documented outputs are mainly local—eco-pesantren programs, forest and spring conservation, and community adaptation—whereas contributions to SDGs 4, 12, 13, and 15 at scale remain proposed pathways. The framework can inform the design of religion-based environmental interventions in Indonesia and comparative research in other Muslim-majority countries.

This review has several limitations that also indicate directions for further research. First, it draws only on articles in Scopus-indexed journals, so articles in nationally accredited (SINTA) journals, grey literature, books, and theses—where many practical initiatives may be documented—are not covered. Second, it covers only English- and Indonesian-language

literature published in 2023–2026; older foundational studies were used only to frame the discussion, and works in other languages, including Arabic, were not included. Third, the studies were selected purposively rather than through an exhaustive systematic search; although the reported criteria, study characteristics, and evidence matrix make the selection and analysis traceable, relevant studies may have been missed, and a systematic review following the PRISMA 2020 guideline (25) would be needed to establish the full size of the literature. In addition, thematic synthesis involves interpretive judgment, other researchers might group the mechanisms differently, and no formal quality appraisal was conducted. Fourth, because most included studies are single-site qualitative case studies, the proposed framework describes plausible pathways rather than tested causal relationships. Future research should therefore test the framework empirically by following the agenda in Table 5, particularly through outcome-oriented, comparative, and mixed-methods studies outside Java.

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Conflicts of Interest

The authors report no conflicts of interest related to this study.

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