



Eco-Sufism-Based Environmental Education in Islamic Boarding School

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Abstract

Studies on environmental education in pesantren have generally emphasized ecological programs and the integration of Islamic values, but they have not sufficiently explained how Sufistic values are institutionalized to address practical ecological problems such as waste management, water and energy use, greening, and students' inconsistent environmental discipline. This study aimed to analyze eco-sufism-based environmental education by examining the integration of eco-sufism values in students' daily ecological activities, the formation of cosmic consciousness through nature tadabbur, the implementation of Sufistic values in pesantren learning and culture, the role of pesantren as a socio-ecological agent, and the formation of students' ecological identity. This research employed a qualitative case study through participatory observation, semi-structured interviews, and documentation involving pesantren leaders, teachers, administrators, and students. The findings showed that eco-sufism is internalized through zuhud, gratitude, rahmah, amanah, khalifah, and tafakkur in fiqh and moral education, teacher modeling, cleanliness duties, plant care, water and energy conservation, waste discipline, community service, and nature tadabbur.

The study concludes that eco-sufism strengthens students' ecological awareness, discipline, responsibility, cosmic consciousness, and ecological identity. Its contribution lies in offering a pesantren-based environmental education model integrating Islamic spirituality, ecological habituation, and sustainable institutional governance.

Keywords: Ecological Identity, Eco-Sufism, Environmental Education, Pesantren, Sufism

A. Introduction

The contemporary environmental crisis is no longer a purely biophysical problem, but a multidimensional crisis marked by climate instability, biodiversity loss, pollution, and the transgression of planetary boundaries (Nazar et al., 2025; Richardson et al., 2026; Ripple et al., 2023). This global crisis is also reflected at the micro level of Islamic boarding school life, where waste management, water conservation, energy use, greening, and ecological discipline have become key concerns in developing sustainable eco-pesantren governance and environmental education (Khoirurrijal et al., 2025; Muslih Hidayat et al., 2026; Syukri, 2024). Preliminary observations at Miftahul Ulum Islamic Boarding School indicate that environmental management requires continuous supervision, as the large number of students creates practical challenges in maintaining cleanliness, managing waste, conserving water and electricity, and caring for green areas. These conditions require an integrative model that links ecological literacy, Islamic values, spiritual discipline, and daily habituation.

The theoretical basis for linking spirituality and ecology can be traced to Islamic environmental ethics, which emphasizes *tawhīd*, *khalīfah*, *amānah*, *mīzān*, moderation, and responsibility toward God's creation (Bsoul et al., 2022; Mohidem & Hashim, 2023). In ecological discourse, spirituality strengthens environmental ethics by shaping human awareness of nature as a sacred trust rather than merely a material resource (Al-Jayyousi et al., 2023; El-Sherbini et al., 2023). Sufistic values such as *zuhud*, *shukr*, *rahmah*, and *tafakkur* deepen this ethical framework by cultivating simplicity, gratitude, compassion, contemplation, and accountability toward all living beings (Mustafa, 2021; Tahir et al., 2025). From this perspective, eco-sufism can be understood as a spiritual-ecological paradigm that positions nature as a divine trust, a space of contemplation, and a field of moral responsibility.

Several previous studies have shown that pesantren have great potential in developing environmental education through religious values, spirituality, and institutional culture. Pesantren not only functions as an Islamic educational

institution, but also as a socio-religious community that can shape the ecological consciousness of students through Islamic teachings, sufistic ethics, kiai leadership, daily habits, and collective ecological practices (Irawan, 2022; Subaidi et al., 2023). Other studies also have shown that eco-theology and Islamic education can strengthen students' ecological responsibility, sustainability awareness, and eco-friendly behavior through curriculum, school culture, and value-based learning practices (Ferdinan et al., 2026; Rohman et al., 2024). In the broader context of faith-based education, environmental education is also concerned with the formation of spirituality, ethical responsibility, and an institutional culture that supports concern for nature (Cholil & Parker, 2021; Hermawan et al., 2025).

Although studies on eco-pesantren, eco-theology, and Islamic environmental education have developed, most research still treat the environment as an object of conservation, as an institutional program, or as the integration of Islamic values in general. There have been few studies that specifically analyze how ecological Sufism shapes students' awareness, discipline, and environmental practices in Islamic boarding schools. In fact, Sufi values have significant potential to build a spiritual relationship among humans, God, and nature through simple attitudes of gratitude, humility, love for creation, and the awareness that nature is a divine mandate. Therefore, this research is directed at filling this gap by examining how eco-Sufism is internalized in education of pesantren environment through the curriculum, institutional culture, kiai-student relations, and daily ecological practices.

Based on this background, this study aims to analyze eco-sufism-based environmental education at Miftahul Ulum Singkut Islamic Boarding School. Specifically, this study focuses on five main aspects: the integration of eco-sufism values into students' daily ecological activities, the formation of students' cosmic consciousness and spiritual relationship with nature through nature tadabbur, the implementation of environmental education based on Sufistic values in pesantren learning and culture, the role of pesantren as a socio-ecological agent in society, and the formation of students' ecological identity within the framework of eco-sufism. Through these focuses, this study explains eco-sufism not only as a spiritual discourse, but also as an educational, institutional, and socio-ecological practice that shapes students' ecological awareness, discipline, responsibility, and environmental identity.

This research is expected to contribute two main aspects. Theoretically, this research enriches the study of Islamic-based environmental education from the perspective of eco-sufism, a perspective that is still rarely addressed in the academic

literature. Practically, this study offers a model for implementing environmental education based on Islamic values in Islamic boarding schools, which can be replicated across other Islamic institutions. Thus, this study emphasizes the role of pesantren not only as a center for the transmission of religious knowledge but also as a relevant agent of socio-ecological transformation in supporting the achievement of the Sustainable Development Goals (SDGs), especially the goals of quality education and action on climate change.

This study used a qualitative case study design to examine the integration of eco-sufism values in the daily life of students at Miftahul Ulum Singkut Islamic Boarding School. A case study design was chosen because it enables an in-depth investigation of a bounded educational and socio-religious setting (Mtisi, 2022; Priya, 2021). The study also employed a socio-religious and ecological approach to examine the relationships among Sufistic practices, Islamic educational patterns, pesantren culture, and ecological awareness. The research was conducted for three months, from March to May 2025, through in-depth interviews, field observation, and documentation of religious routines, formal learning, cleanliness programs, greening activities, and student discipline.

Participants were purposively selected because they held specific roles, had relevant knowledge, and were directly involved in implementing eco-sufism values. A total of 12 participants were involved, comprising one pesantren leader, three fiqh and morals teachers, two pesantren administrators, and six students from junior to senior levels. The pesantren leader provided information on the institutional vision; the teachers explained the integration of Sufistic and ecological values into learning; the administrators described the supervision of cleanliness and discipline programs; and the students shared their direct experiences with daily ecological practices. The number of participants was considered adequate because qualitative research emphasizes depth of information, role representation, and saturation of meaning rather than statistical representation (Ahmed et al., 2025; Hennink & Kaiser, 2022).

Data were collected through participatory observation, semi-structured interviews, and documentation to obtain in-depth and contextual data in qualitative case study research (Mtisi, 2022; Priya, 2021). The fieldwork was conducted for approximately two months, from March to April 2025. Participatory observation was carried out by following students' daily ecological activities, including morning assemblies, cleanliness pickets, communal work, greening activities, water and energy-saving practices, and nature *tadabbur*.

Participatory observation focused on students' ecological behavior, teacher guidance, leadership patterns, disciplinary practices, and the integration of sufistic values into daily environmental routines. Semi-structured interviews were conducted with pesantren leaders, teachers, administrators, and students, with each interview section lasting approximately 30–60 minutes. The interviews examined four key aspects: the pesantren's ecological vision, the integration of eco-sufism values in fiqh and moral education, the management of cleanliness and greening programs, and students' internalization of *zuhud*, gratitude, *rahmah*, responsibility, and ecological awareness. Documentation, including curriculum materials, pesantren rules, cleanliness schedules, activity reports, internal policy documents, and photographs of ecological activities, was used to verify and complement the observation and interview data. The entire data collection process was guided by an instrument grid consisting of observation indicators, interview questions, and documentation checklists to ensure methodological clarity, consistency, and relevance to the research focus.

Table 1. Data Collection Instrument Grid

Technique	Main Focus	Example of Instrument Items
Participatory observation	Daily ecological practices, environmental discipline, and integration of sophisticated values	How do students participate in cleanliness pickets, plant care, water-saving practices, and nature <i>tadabbur</i> ? What sophisticated values are reflected in these activities?
Interview with pesantren leaders	Institutional vision, religious foundation, and ecological policy	How does the pesantren define environmental care as part of Islamic education? What policies do support students' ecological awareness?
Interview with teachers	Integration of eco-sufism in fiqh and moral education	How are values such as <i>zuhud</i> , gratitude, and <i>rahmah</i> integrated into learning activities?
Interview with administrators	Management of cleanliness, greening, discipline, and supervision	How are environmental programs managed and supervised in the pesantren?
Interview with students	Internalization of values and behavioral change	What ecological activities do students participate in, and what changes do they experience after joining these activities?

Documentation	Institutional and activity-based evidence	What documents do support the integration of eco-sufism values in pesantren education and management?
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The data obtained from participatory observation, semi-structured interviews, and documentation were compared through triangulation. This process was used to ensure consistency, credibility, and a comprehensive understanding of how eco-sufism was institutionalized in pesantren-based environmental education.

Data were analyzed through data condensation, data display, and conclusion drawing verification to organize field data systematically and maintain analytical coherence (John W. Creswell & Cheryl N. Poth, 2023; Miles et al., 2020). The analysis began with open coding, reading interview transcripts, observation notes, and documents line by line to identify meaningful units related to ecological habituation, Sufistic values, curriculum integration, institutional supervision, and students' ecological awareness. The initial codes were then refined through axial coding by linking related categories, such as *zuhud* with water-saving practices, gratitude with plant care, *rahmah* with environmental responsibility, and discipline with cleanliness management (Bingham, 2023; Saldana, 2021). Afterward, thematic analysis was conducted to identify major patterns explaining how eco-sufism was institutionalized in pesantren-based environmental education (Braun and Clarke, 2021; Terry & Hayfield, 2021). The data interpretation process was carried out by relating the emerging themes to eco-sufism and Islamic environmental ethics, particularly how sufistic values were transformed into ecological beliefs, institutional norms, and students' daily environmental practices (Creswell & Creswell, 2023; Maxwell, 2021).

The validity of the research was ensured through the triangulation of sources, methods, and time (Denzin, 2012). Data from pesantren leaders, ustadz/ustadzah, administrators, and students were compared and verified with the results of observation and documentation. Data collection was also carried out at different times to ensure the consistency of the information obtained.

The ethical aspect was upheld by explaining the purpose of the research to all participants and obtaining informed consent before interviews and documentation were conducted. The identity of the participants was kept confidential by using pseudonyms. Documentation in the form of photos or notes was only published with the official approval of the pesantren and the individual concerned.

B. Result and Discussion

1. Integration of Eco-Sufism Values in Students' Daily Activities

The daily lives of students at Miftahul Ulum Singkut Islamic Boarding School show that eco-sufism is practiced through repeated ecological routines, rather than merely taught as an abstract religious concept. Observations showed that students regularly watered plants, cleaned the pesantren environment, participated in communal work, conserved water, and turned off taps, fans, water machines, and classroom lights after night activities. These activities indicate that ecological awareness has been formed through habituation, supervision, and religious meaning-making. However, the observation also found that several plants were damaged because the surrounding area was used as a playground. This finding suggests that ecological discipline had begun to develop, but all students had not fully internalized it.



Figure 1. Santri Watering Plants and Cleaning the Pesantren Environment as an Eco-Sufism Practice

Kiyai H. Asyhari Munawwar emphasized:

“Nature is a mandate, so taking care of it is part of our daily worship.”

He further stated:

“If students understand Sufism, they will learn to live simply, not waste water or food, and not damage nature.”

These statements show that environmental care is framed as a spiritual responsibility. The values of *zuhud*, gratitude, and *rahmah* are translated into daily ecological behavior, such as simplicity, water conservation, energy saving, and care

for living beings. In this sense, eco-sufism provides the ethical-spiritual foundation for pesantren-based environmental education by positioning nature as a divine trust and humans as responsible stewards of creation (Foltz, 2003; Naşr, 1968).

The integration of eco-sufism values is also strengthened through classroom learning. Ustadzah Mutmainnah has connected fiqh and moral education with environmental responsibility. She stated:

“When teaching the chapter of *taharah*, I explained the importance of maintaining clean water and the environment.”

She also added:

“The value of *zuhud* can be understood as saving water and food, while gratitude means protecting Allah’s blessings, including nature.”

This finding indicates that fiqh learning is not limited to ritual purification but also extends to ecological ethics, including the protection of water, cleanliness, and environmental balance. Moral education also becomes a medium for connecting spiritual values with concrete ecological practices. Thus, the internalization of eco-sufism occurs through the reinterpretation of religious teachings into daily environmental behavior. This supports previous studies showing that Islamic values, spirituality, gratitude, and moral responsibility can strengthen environmental awareness and pro-environmental behavior when integrated into educational practices (Begum et al., 2021; Sohail et al., 2025).

At the institutional level, ecological discipline is strengthened through picket schedules, supervision, and educational sanctions. Ustadz Aryo explained:

“Every day, there is a picket schedule. We control cleanliness three times: morning, afternoon, and evening.”

He also noted:

“The main obstacle is waste management because there are around 300 students.”

At the institutional level, eco-sufism is institutionalized through rules, supervision, sanctions, and collective routines that shape students’ ecological discipline. This pattern reflects the role of subjective norms and behavioral control in guiding intentional behavior (Ajzen, 1991) and supports eco-pesantren studies showing that cleanliness programs, greening activities, and habituation strengthen students’ environmental discipline (Al Hasani & Masnawati, 2024; Wijaya Mulya & Salvi, 2025).

From the students' perspective, ecological practices gradually have shaped personal awareness. Dian Lestari, a senior student, stated:

“Protecting the environment is a form of trust as a caliph on earth and gratitude to Allah for the blessings of nature.”

This testimony shows that pesantren routines have transformed environmental obligations into spiritual awareness. Cleanliness, plant care, water saving, and communal work become expressions of worship, responsibility, and gratitude. This reflects the Value–Belief–Norm logic, where values shape ecological beliefs and personal norms for pro-environmental behavior (Stern, 2000), a pattern also supported by recent studies on value-based environmental education (Caplow, 2021; Negm, 2023).

These findings align with previous studies on eco-sufism and eco-pesantren that emphasize Sufistic spirituality, tazkiyatun nafs, eco-dhikr, and Islamic ecological spirituality as foundations of environmental awareness (Faruque, 2025; Irawan, 2022; Khikamuddin et al., 2024; Sadjali, 2024). However, this study extends those works by showing how eco-sufism is institutionalized through pesantren governance, classroom learning, daily routines, teacher modeling, and disciplinary mechanisms. Its novelty lies in explaining eco-sufism not merely as a spiritual discourse, but as an institutional practice that shapes students' ecological discipline and environmental responsibility.

Theoretically, eco-sufism provides spiritual values that shape ecological beliefs, while pesantren rules, teacher modeling, supervision, and habituation translate those beliefs into daily environmental behavior. This integration reflects recent developments in Value–Belief–Norm theory and the Theory of Planned Behavior, which explain pro-environmental action through values, beliefs, norms, attitudes, and perceived behavioral control (Negm, 2023; Wang et al., 2024).

Nevertheless, the implementation of eco-sufism in daily pesantren life still faces challenges, particularly in waste management, reliance on teacher supervision, and inconsistent environmental care among students. These challenges indicate that eco-sufism-based environmental education requires stronger ecological literacy, better waste management facilities, continuous mentoring, and greater student participation. The contribution of this study lies in showing eco-sufism not only as a spiritual discourse, but also as a theoretical, practical, and policy model for shaping ecological awareness through pesantren values, rules, habituation, teacher modeling, and collective responsibility.

2. Cosmic Consciousness and Spiritual Relationship of Students with Nature

Nature *tadabbur* activities at Miftahul Ulum Singkut Islamic Boarding School show that environmental education is not limited to cleanliness and greening, but also directed toward the formation of students' cosmic consciousness. Observations showed that students were invited outside the classroom during scouting and student organization activities to sit under trees, read Qur'anic verses, and reflect on Allah's creation. This activity indicates that students' ecological awareness moves beyond technical environmental care toward a spiritual understanding of nature as a sign of Allah's greatness.



Figure 2. Students Perform Nature Tadabbur in Scouting Activities as a Form of Cosmic Reflection

Kiyai H. Asyhari Munawwar emphasized the importance of the spiritual relationship between students and the environment:

“Sufism emphasizes affection, not only toward humans, but also toward all of God’s creatures.”

This statement shows that environmental care is rooted in compassion and spiritual closeness to God. Treating nature well is therefore understood as part of obedience and self-approach to Allah. This view aligns with the concepts of *wahdat al-wujud* and *tajalli*, which regard creation as a manifestation of divine signs. It also corresponds to Islamic ecological thought that interprets the modern ecological crisis as a consequence of the loss of sacred awareness of nature (Foltz, 2003; Naşr, 1968).

Ustadzah Mutmainnah added a pedagogical dimension:

“Through nature *tadabbur*, students are invited to reflect on the greatness of Allah and to understand that every creature has a role in praising Him.”

This statement indicates that nature *tadabbur* functions as a pedagogical strategy that connects Qur’anic reflection with ecological awareness, by referring to QS. Al-Isra’: 44, students are guided to understand nature as a divine sign that invites gratitude, humility, and responsibility. This finding supports recent studies showing that spirituality, gratitude, and cosmic awareness can strengthen ecological responsibility in religious-based environmental education (Sohail et al., 2025; Wijaya Mulya & Salvi, 2025).

From the management side, Ustadz Aryo explained this practice in scouting activities:

“We insert nature reflection in scout activities. Students sit under trees, read Qur’anic verses, and discuss how nature is a sign of Allah’s greatness.”

This finding shows that cosmic consciousness has been developed not only through classroom instruction, but also through experiential learning in scouting and student organizations. By connecting Qur’anic reflection, direct contact with nature, and environmental responsibility, these activities function as a spiritual-pedagogical space that strengthens ecological awareness through lived experience and nature connectedness (Pirchio et al., 2021; Yanniris et al., 2023).

Senior student Dian Lestari shared her personal experience:

“Protecting the environment is a form of trust as a caliph on earth and gratitude to Allah for the blessings of nature.”

This testimony shows that nature *tadabbur* has transformed environmental care into a spiritual duty rooted in *amānah*, *khalifah* responsibility, and gratitude. This process reflects recent applications of Value–Belief–Norm theory, which explains how values shape ecological beliefs, personal norms, and pro-environmental behavior (Caplow, 2021; Negm, 2023).

The findings are consistent with previous studies on eco-sufism and Islamic ecological spirituality that emphasize Sufi values, spiritual purification, simplicity, compassion, and harmony with nature as foundations of ecological awareness (Fikri et al., 2024; Zulkifli, 2023). However, this study extends those works by showing that cosmic consciousness is shaped not only through individual spiritual reflection but also through institutionalized practices, including teacher guidance, scouting activities, student organizations, Qur’anic reflection, nature *tadabbur*, and collective environmental practices.

Theoretically, this study integrates eco-sufism, Value–Belief–Norm theory, and eco-pesantren studies. Eco-sufism provides spiritual values such as amānah, khalīfah responsibility, gratitude, compassion, and respect for nature, while VBN theory explains how values and moral norms shape pro-environmental behavior (Fikri et al., 2024; Song et al., 2024). Eco-pesantren studies further show that pesantren rules, habituation, collective activities, and teacher modeling can translate spiritual awareness into ecological discipline (Adzillah, 2025; Kejora et al., 2025). Thus, ecological awareness in this study is understood not merely as an environmental discipline but as cosmic consciousness rooted in Islamic spirituality and institutional practice.

3. Environmental Education Based on Sufistic Values in Islamic Boarding School

The integration of eco-sufism values in pesantren education is not only practiced through daily routines, but also embedded in formal learning, especially in fiqh and moral education. Observations showed that environmental messages were regularly delivered during morning assemblies and after congregational prayers. These practices indicate that the pesantren integrates spiritual, moral, and practical dimensions to cultivate students' ecological awareness. Environmental education is therefore not treated as a separate program, but as part of religious learning, character formation, and institutional culture.



Figure 3. Santri Morning Roll Call Activity as a Means of Integrating Environmental Cleanliness Message Based on Sufistic Values

Kiyai H. Asyhari Munawwar emphasized that the vision of the pesantren goes beyond the mere ritual aspect:

“Education in Islamic boarding schools is not only about worship, but also about maintaining Allah’s mandate in the form of nature.”

This statement shows that pesantren education extends beyond ritual formation to include ecological responsibility. The concept of *khalifah fil ardh* becomes the moral basis for positioning humans as guardians of nature. This view is in line with Islamic ecological thought, which sees environmental destruction as related to the loss of sacred awareness and moral responsibility toward creation (Foltz, 2003; Naşr, 1968).

Ustadzah Mutmainnah explained the integration of Sufi values in daily learning:

“When teaching *taharah*, I emphasized the importance of maintaining clean water. *Zuhud* can be practiced by saving water and energy, while gratitude means protecting Allah’s blessings.”

These findings show that fiqh and moral education function as key pedagogical spaces for translating Sufi values into ecological behavior. *Taharah* is linked not only to ritual purity but also to water conservation and environmental cleanliness. At the same time, *zuhud*, gratitude, and *rahmah* are internalized through habits of avoiding waste, caring for plants, and maintaining the pesantren environment. Thus, ecological awareness in pesantren emerges through the integration of Islamic values, daily discipline, and institutional culture (Adzillah, 2025; Albar, 2024).

Ustadzah Mutmainnah further observed a change in students’ behavior:

“At first, many students did not care, but after learning and do some activities, they began to throw garbage in its place and take care of plants.”

This testimony shows that eco-sufism-based learning has shaped students’ ecological awareness and daily environmental discipline. The shift from indifference to participation indicates that pesantren-based environmental education becomes effective when religious instruction is reinforced through habituation and direct ecological practice (Sa’edi et al., n.d.; Sافرilsyah et al., 2024).

From the management aspect, Ustadz Aryo emphasized the importance of discipline through social control mechanisms:

“Every day, there is a picket schedule. We control cleanliness three times a day and give educational sanctions.”

This statement shows that environmental education in pesantren is shaped not only by classroom teaching but also by institutional management. Picket schedules, supervision, sanctions, and collective routines strengthen students’

ecological discipline by making environmental care as daily pesantren habit, as shown in studies of eco-pesantren culture and Islamic environmental education.

From the student's side, personal experience also shows a transformation of consciousness. Dian Lestari, a senior student, said:

“From fiqh and moral lessons, I became more aware that protecting the environment is worship.”

This testimony confirms that Sufi-based learning can connect ecological practices with worship, gratitude, and responsibility. Students' participation in properly disposing of garbage, conserving ablution water, and planting trees indicates that ecological awareness is gradually internalized through the interplay of religious learning, teacher modeling, and daily habituation.

The findings support studies showing that eco-pesantren programs and moral education strengthen students' ecological discipline (Al Hasani & Masnawati, 2024; Wijaya Mulya & Salvi, 2025). They also confirm that Islamic spiritual values such as moderation, gratitude, compassion, and responsibility toward nature can serve as a pedagogical foundation for sustainable environmental education (Siagian et al., 2023; Zabidi et al., 2021). The contribution of this study lies in demonstrating how these values are integrated directly into fiqh and moral education and then reinforced through morning assemblies, teacher modeling, institutional supervision, and pesantren management.

Nevertheless, the implementation of environmental education grounded in Sufi values still faces challenges. Some students' ecological behavior still depends on teacher supervision and sanctions, indicating that autonomous ecological awareness has not yet fully formed. Waste management also remains difficult due to the large number of students. These challenges suggest that eco-sufism-based education requires stronger ecological literacy, better facilities, continuous mentoring, and greater student participation in environmental programs.

This study contributes theoretically by showing how eco-sufism, Value-Belief-Norm theory, and the Theory of Planned Behavior can explain the formation of ecological awareness in Islamic boarding schools. Practically, it demonstrates that fiqh learning, moral education, morning assemblies, cleanliness pickets, teacher modeling, and educational sanctions can be effective instruments for environmental education. In terms of policy, this study offers a pesantren-based model for integrating Islamic spirituality, ecological literacy, and institutional governance to support sustainable environmental education.

4. Pesantren as Socio-Ecological Agent in Society

Islamic boarding school programs such as cleanliness pickets, greening, and routine community service show the role of Miftahul Ulum Singkut Islamic Boarding School as a socio-ecological agent. Observations showed that cleaning and greening activities were carried out collectively by students, teachers, and administrators. These activities indicate that pesantren not only transmits religious knowledge but also builds ecological culture through collective discipline, cooperation, and Islamic spirituality.



Figure 4. Students Perform Routine Community Service as a Form of Socio-Ecological Concern

Ustadz Aryo explained the mechanism of supervision and discipline in maintaining cleanliness:

“Every day, there is a picket schedule in the morning, afternoon, and evening. The main obstacle is waste because there are around 300 students. If students litter, they are given educational sanctions so that they learn responsibility.”

This statement shows that environmental education in pesantren is not only based on habituation, but also supported by supervision and educational sanctions. Rules, collective routines, and sanctions function as social control mechanisms that shape students’ ecological discipline. This pattern reflects the Theory of Planned Behavior, in which subjective norms, attitudes, and perceived behavioral control influence environmental behavior (Ajzen, 1991). Recent studies also show that pesantren-based environmental programs can strengthen students’ ecological

discipline through rules, collective habituation, and institutional supervision (Khotimah et al., 2024; Muchtar et al., 2024; Wijaya Mulya & Salvi, 2025).

Kiyai Asyhari Munawwar added the dimension of greening as part of the student life curriculum:

“We planted durian, jackfruit, and vegetables. Students take care of them, so they learn farming while protecting the environment.”

This finding shows that greening activities function not only as environmental conservation but also as experiential learning. Students learn ecological responsibility through direct practice, such as planting, caring for trees, and maintaining the pesantren environment. This supports the idea that environmental education is more effective when students engage in direct, contextual, and practice-based learning (Pirchio et al., 2021; Yanniris et al., 2023).

Community service activities also strengthen social solidarity and ecological responsibility. Observations showed that collective cleaning activities were carried out every two weeks and more frequently before major pesantren events. These activities not only maintain environmental cleanliness but also cultivate cooperation, discipline, and a sense of shared responsibility. In the Islamic social tradition, this practice reflects the value of *ta'āwun* in goodness, as emphasized in QS. Al-Mā'idah: 2. Thus, pesantren-based environmental education integrates ecological care with social ethics and religious values.

Theoretically, this finding shows that pesantren functions as a mediator between Islamic spirituality and ecological action. Values such as simplicity, gratitude, compassion, *khalifah*, and *amānah* are translated through pesantren governance, collective routines, supervision, greening, and community service into concrete ecological behavior. Thus, pesantren operate not only as a religious institution but also as a socio-ecological actor that supports sustainability education and community transformation (Nuraeni, 2025; Kejora et al., 2025).

However, the implementation of pesantren as a socio-ecological agent still faces several challenges. Waste control remains difficult due to the large number of students, while some ecological behaviors still require supervision and sanctions. Greening and community service programs also require stronger student participation, better waste management facilities, and more systematic ecological literacy. These challenges indicate that pesantren-based environmental education must move beyond routine activities toward more participatory, measurable, and sustainable ecological programs.

This finding offers theoretical, practical, and policy contributions. Theoretically, it explains pesantren as a socio-ecological institution that connects eco-sufism, collective discipline, and environmental responsibility. In practice, it shows that cleanliness pickets, greening programs, community service, supervision, and educational sanctions can serve as instruments for building ecological culture. In terms of policy, this study suggests that Islamic boarding schools can be developed as community-based sustainability centers that integrate religious values, ecological literacy, and institutional governance.

5. The Ecological Identity of Students in the Framework of Eco-Sufism

The ecological identity of students at Miftahul Ulum Singkut Islamic Boarding School is shaped by the interplay among daily habituation, classroom learning, and institutional programs. Observations showed that students were trained to maintain cleanliness, water plants, manage waste, save energy, and reuse used materials as handicrafts. These practices indicate that students are not only shaped as religious individuals, but also as learners who develop concern for cleanliness, greening, and environmentally responsible behavior.



Figure 5. Students Make Garbage Bag Crafts from Used Goods as a Form of Ecological Identity

Kiyai H. Asyhari Munawwar detailed the core values instilled:

“Students must be used to live cleanly, independently, with full of caring, and even polite to nature.”

This statement shows that ecological identity is built through the internalization of religious and environmental values into everyday behavior. The phrase “polite to nature” reflects an eco-sufistic view that nature is not merely an object of use, but part of Allah’s creation that deserves respect and care. This view is consistent with recent studies on Islamic environmental ethics and spirituality,

which emphasize gratitude, moral responsibility, and pro-environmental behavior as foundations for sustainable ecological awareness (Gulzar et al., 2021; Sohail et al., 2025).

Senior student, Dian Lestari, admitted that the change in her attitude was also carried outside the pesantren:

“I became more disciplined, caring, and aware that protecting nature is worship. This habit is partly carried over when returning home, although it is not as strict as in the pesantren.”

This testimony shows that students’ ecological identity develops through repeated social practice and partly extends beyond the pesantren, although it remains stronger within its institutional environment. This identity emerges from the interaction between Islamic tradition, pesantren habituation, and contemporary ecological challenges (Wild & Schulze Heuling, 2024).

Ustadzah Mutmainnah also emphasized the role of formal education:

“Littering is a moral violation. *Zuhud* means not being wasteful, and gratitude means protecting Allah’s blessings, including nature.”

This statement shows that fiqh and moral education provide the normative basis for ecological identity. Through learning, students reinterpret environmental care as part of worship, gratitude, and moral responsibility. This process reflects recent applications of Value–Belief–Norm theory, which explains how values shape ecological beliefs and personal norms for pro-environmental behavior (Caplow, 2021; Negm, 2023).

In terms of management, Ustadz Aryo emphasized:

“Cleanliness pickets and community service form students as caring and responsible individuals.”

This statement shows that ecological identity is strengthened through repeated institutional routines. Pickets, community service, waste management, greening activities, and recycling practices train students to become disciplined, responsible, and environmentally aware. This supports studies showing that routine programs, habituation, and Sufistic values can strengthen ecological concern and environmental discipline in pesantren contexts (Khotimah et al., 2024; Masturin & Nadhirin, 2024).

These findings indicate that students’ ecological identity is formed through the interaction between Sufistic values and contemporary ecological challenges.

Values such as *zuhud*, gratitude, and *rahmah* are translated into concrete practices, including saving energy, maintaining cleanliness, caring for plants, reusing materials, and participating in communal work. The novelty of this study lies in demonstrating that ecological identity is formed not only through religious teaching but also through the interplay of spiritual values, institutional habituation, and everyday environmental practices.

Nevertheless, students' ecological identity remains stronger inside the pesantren than outside it, showing that ecological awareness has not yet been fully internalized across social contexts. This finding contributes to eco-sufism-based education by highlighting the need for structured ecological literacy, family involvement, alumni follow-up, and community-based sustainability programs.

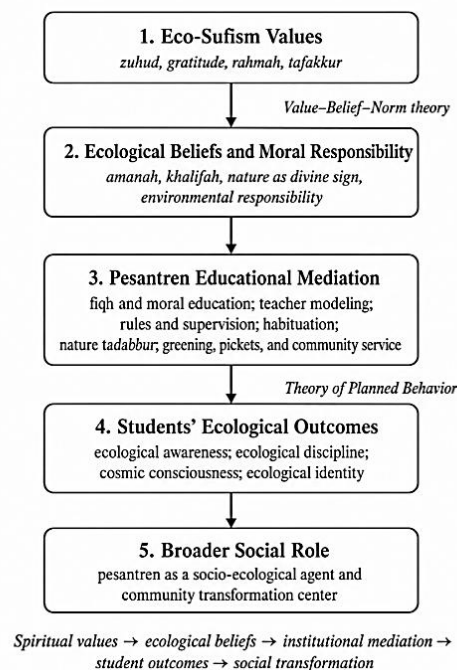


Figure 6. Model of Eco-Sufism-Based Environmental Education in Pesantren

Figure 6 illustrates how eco-sufism values are transformed into ecological awareness through pesantren education, institutional habituation, teacher modeling, rules, supervision, and collective environmental practices. This model shows that pesantren functions not only as a religious education institution but also as a socio-ecological agent shaping students' ecological discipline, cosmic consciousness, and environmental identity.

C. Conclusion

This study concludes that eco-sufism-based environmental education is practiced through the integration of zuhud, gratitude, rahmah, amānah, khalīfah, and tafakkur into fiqh and moral education, teacher modeling, cleanliness routines, greening activities, water and energy conservation, community service, and nature tadabbur. These practices show that eco-sufism functions not only as a spiritual discourse, but also as an educational and institutional approach that shapes students' ecological awareness, discipline, cosmic consciousness, responsibility, and ecological identity. The findings contribute to Islamic environmental education by demonstrating how pesantren can transform Sufistic values into daily ecological practices and socio-ecological action. However, this study is limited to a single pesantren and relies on qualitative data from observation, interviews, and documentation, so it has not yet measured the long-term sustainability of students' ecological identity beyond the pesantren context. Future studies should use comparative or longitudinal designs to examine the broader application of eco-sufism-based environmental education in different Islamic educational institutions.

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