



THE RELATIONSHIP BETWEEN RELIGIOUS UNDERSTANDING AND WASTE MANAGEMENT BEHAVIOR AMONG MUSLIM COMMUNITIES IN MEDAN

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Abstract

This study examines the relationship between religious understanding and waste management behavior among Muslim communities in Medan City. Using a qualitative case study in Medan Tembung District, data were collected through observation, in-depth interviews, and documentation involving religious leaders, academics, government officials, waste-bank managers, and residents. The findings show that the community generally understands environmental care as part of Islamic teaching: cleanliness is associated with faith, environmental protection with religious obligation, and humans with khalifah fil ardh entrusted to maintain ecological balance. However, this understanding has not been fully reflected in daily practice. Waste segregation remains limited, improper disposal persists, and participation in community-based waste management is weak. This gap is shaped by entrenched habits, limited facilities, weak institutional support, and insufficient internalization of ecological values. Strengthening eco-religious literacy and collaboration among religious institutions, government, and local communities is therefore essential.

Keywords: Religious understanding, Waste management behavior, Muslim communities, Environmental ethics, Eco-religious literacy

INTRODUCTION

The waste problem is one of the most complex environmental challenges in urban areas of Indonesia. Population growth, urbanization, changes in consumption patterns, and the increasing use of single-use products have contributed to a significant rise in waste volume over the past few decades. Data from the Ministry of Environment and Forestry's National Waste Management Information System (SIPSN) indicates that national waste generation in 2024 reached approximately 33.79 million tons, with the household sector as the largest contributor.¹ This situation has led to various environmental problems, such as soil and water pollution, clogged drainage systems, deteriorating environmental health, and an increased risk of urban flooding. Various studies indicate that suboptimal waste management is not only caused by limited infrastructure and policies but also by low public participation in sustainable waste management^{2,3}. In an urban context, the complexity of waste issues escalates alongside population growth and economic activities that generate massive amounts of waste.

As one of Indonesia's largest metropolitan cities, Medan faces similar challenges. The expansion of residential areas, commercial activities, and high population mobility result in a steadily increasing volume of waste each year. Data from the Environmental Agency indicates that by 2025, Medan will generate approximately 1,700 tons

¹Kementerian Lingkungan Hidup dan Kehutanan, *Sistem Informasi Pengelolaan Sampah Nasional (SIPSN): Data timbunan sampah nasional tahun 2024*, (Jakarta: Kementerian Lingkungan Hidup dan Kehutanan, 2024)

²Haryanti, S., et al., *The Social Capital and Impact in Waste Management of the Waste Bank System in Yogyakarta Indonesia*, (Jurnal Teknologi Lingkungan, Vol. 24 No.2 Juli 2023), hlm. 190-199.

³Salsabila, N., et al., *Public Engagement Impact on Sustainable Waste Management in Indonesia: Examining Public Behavior*, (Jurnal Administrasi Publik, 13 (2) December 2023), hlm 158-178, <https://ojs.uma.ac.id/index.php/jap>

of waste per day, making it one of the regions with the highest waste generation in North Sumatra. This massive volume of waste poses a serious challenge for local governments in establishing an effective and sustainable waste management system. Although various waste management programs have been implemented through the provision of sanitation facilities, transportation systems, and public awareness campaigns, the practice of indiscriminate waste disposal is still found in various residential areas, riverbanks, drainage channels, and public spaces. This situation indicates that the waste problem in the City of Medan is not only related to technical and institutional aspects but is also closely linked to public behavior and participation in managing their environment.^{4,5}

Various recent studies indicate that public behavior is a critical factor in determining the success of waste management. Knowledge of the negative environmental impacts of waste does not always translate into responsible actions regarding waste management. Many individuals understand the importance of maintaining a clean environment but have not yet developed the habit of sorting waste, recycling, or disposing of waste in designated areas. This situation indicates a gap between environmental knowledge and environmental behavior, which is influenced by various social, cultural, and psychological factors.

From an environmental behavior perspective, the Theory of Planned Behavior (TPB) explains that an individual's behavior is influenced by attitudes toward the behavior, subjective norms,

⁴Jacob, J., & Dwipayanti, N. M. U., *Planned Behavior Theory Approach to Waste Management Behavior in South Denpasar District*, (Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education Vol. 10 No. 2, 2022) hlm. 118-129

⁵Haryanti, S., et al., *The Social Capital and Impact in Waste Management of the Waste Bank System in Yogyakarta Indonesia*, (Jurnal Teknologi Lingkungan, Vol. 24 No.2 Juli 2023), hlm. 190-199

perceived behavioral control, and intention to act.⁶ This theory is widely used to explain pro-environmental behavior, including waste management behavior. Research by Jacob and Dwipayanti⁷ indicates that knowledge, attitudes, and perceived behavioral control significantly influence community waste management behavior. These findings are supported by Yandri et al.⁸, who found that subjective norms, behavioral intentions, and perceived behavioral control have a strong influence on household waste management practices.

In addition to psychological factors, various studies indicate that religious values play a crucial role in shaping environmental behavior. In religiously oriented societies such as Indonesia, religion functions not only as a system of beliefs but also as a source of values, norms, and moral guidelines that direct everyday conduct. Therefore, environmental issues, including waste management, cannot be separated from ethical dimensions and religious responsibilities.

Research by Karimi et al.⁹ indicates that religiosity influences pro-environmental behavior both directly and through the formation of environmental attitudes, subjective norms, and perceived behavioral control. These findings suggest that individuals with higher levels of religiosity tend to demonstrate greater environmental concern. The

⁶Ajzen, I., *The theory of planned behavior*, (*Organizational Behavior and Human Decision Processes*, 50 (2), 1991), 179–211 [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)

⁷Jacob, J., & Dwipayanti, N. M. U., *Planned Behavior Theory Approach to Waste Management Behavior in South Denpasar District*, (*Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education* Vol. 10 No. 2, 2022) hlm. 118-129

⁸Yandri, P., et al., *Subjective norms, behavioral intention, and household waste management behavior: An application of the theory of planned behavior*, (*Jurnal Pengelolaan Sumberdaya dan Lingkungan* Vol 15 No. 5), <https://journal.ipb.ac.id/jpsl/index>

⁹Karimi, S., Liobikiene, G., & Alitavakoli, M., *The effect of religiosity on pro-environmental behavior based on the theory of planned behavior*. *Sustainability*, 14 (6), 1–18, 2022), <https://doi.org/10.3389/fpsyg.2022.745019>

results of the study by Begum et al.¹⁰ also indicate that Islamic religiosity strengthens the influence of environmental moral education on pro-environmental behavior. Thus, religious values have the potential to serve as an effective source of motivation in fostering responsible environmental awareness and behavior.

From an Islamic perspective, protecting the environment is an integral part of religious teachings. Islam not only governs the relationship between humans and Allah SWT and among fellow humans but also governs the relationship between humans and the universe. The Qur'an explicitly prohibits *fasad fi al-ardh* (corruption on earth) and commands humans to maintain the balance of life. Various hadiths of the Prophet Muhammad (peace be upon him) also emphasize the importance of cleanliness, environmental conservation, and the wise use of natural resources.

Contemporary Islamic thought on the environment positions humans as *khalifah* who bear a moral responsibility for the sustainability of life. According to Shihab¹¹, the concept of *khalifah* cannot be understood as a justification for domination and exploitation of nature, but rather as a trust to preserve, manage, and maintain the balance of the environment. From this perspective, humans are obligated to maintain harmony between the utilization of natural resources and the preservation of ecosystems as part of their religious responsibility.

This stewardship of *khalifah* entails a moral obligation to ensure that all human activities do not cause harm to the environment. This view aligns with the principles of Islamic environmental ethics, which are grounded in the concepts of *khalifah*, *amanah*, and ecological

¹⁰Begum, H., Alam, A. S. A. F., Awang, A. H., Ghani, A. B. A., & Siddiqui, B. A., *Religiosity and environmental responsibility: The role of Islamic values in pro-environmental behavior. Sustainability*, 13(3), 2021), hlm. 1456. <https://doi.org/10.3390/su13031456>

¹¹Shihab, M. Q., *Khilafah: Peran manusia di bumi*. (Ciputat: Lentera Hati, 2022)

justice. Haideri¹² states that Islamic environmental ethics is rooted in the principles of tawhid, khalifah, mizan, and hikmah, which position humans as guardians of the natural balance. Thus, environmental conservation in Islam is viewed not only as a social necessity but also as a spiritual responsibility.

Studies on Islamic eco-theology in recent years have further strengthened this argument. Khasani¹³ demonstrates that the hadiths of the Prophet Muhammad (peace be upon him) contain various ecological principles emphasizing the importance of cleanliness, conservation of natural resources, environmental protection, and the prohibition against causing harm to the earth. In line with this, Sya'roni et al.¹⁴ explain that the concepts of khalifah, amanah, mizan, and tanzif (cleanliness) are core values that can serve as a foundation for developing an Islamic environmental ethics relevant to contemporary ecological challenges.

The implementation of these values in societal life is fostered through the concept of fiqh al-bi'ah, which positions environmental conservation as part of Muslims' religious responsibilities. Widigdo and Azhar¹⁵ explain that fiqh al-bi'ah provides a normative framework that can be used to encourage community participation in community-based environmental and waste management. This perspective is

¹²Haideri, A., *An Analytical Study of Islamic Faith and Ethics in the Context of Environmental Sustainability*. (Riphah Journal of Islamic Thought & Civilization, RJITC, Vol: 3, Issue: 01, 2025), <https://journals.riphah.edu.pk/index.php/jitc>

¹³Khasani, F., *Khilāfah, Taskhīr, and Sustainability: Reconstructing Islamic Eco-Theology through Al-Qurṭubī's Tafsīr*. (Journal Of Islamic Studies, 3 (2), 145-156, 2025), <https://doi.org/10.71039/istifham.v3i2.111>

¹⁴Sya'roni, M., et al., *Ecotheological Insights from Prophetic Hadiths: Reframing Islamic Environmental Ethics Based on SDGs*, (Pharos Journal of Theology ISSN 2414-3324 online Volume 106 (5) Regular Issue, 2025), <https://doi.org/10.46222/pharosjot.106.51>

¹⁵Widigdo, A., & Azhar, M., *Fiqh al-Bi'ah: The Application of Islamic Environmental Ethics in the Community-Based Waste Management in Yogyakarta*, (Proceeding International Conference of Community Service, Vol. 3 No. 2, 2025), <https://doi.org/10.18196/iccs.v3i2>

reinforced by Eriza et al.¹⁶, who note that the Indonesian Ulema Council Fatwa No. 41 of 2014 on Waste Management to Prevent Environmental Damage affirms that maintaining environmental cleanliness and properly managing waste are part of the moral and religious responsibilities of Muslims.

Nevertheless, high levels of religiosity in society do not always correlate directly with the environmental behaviors exhibited in daily life. Karimi et al.¹⁷ found that the influence of religiosity on environmental behavior is often mediated by other factors such as attitudes, social norms, and perceptions of behavioral control. These findings indicate that sound religious understanding does not automatically lead to environmentally responsible behavior unless accompanied by the internalization of values and adequate social support.

This phenomenon is also evident within the Muslim community in Medan. Initial observations indicate that most community members understand that cleanliness is part of Islamic teachings and that environmental stewardship constitutes a religious responsibility. This understanding is acquired through family education, educational institutions, religious study groups, sermons, and various other religious activities. However, at the same time, there are still instances of indiscriminate waste disposal, a low culture of household waste sorting, minimal participation in community-based waste management activities, and a lack of concern for the cleanliness of public spaces. These conditions reveal a paradox between relatively strong religious

¹⁶Eriza, A., et al. (2024). Islamic Ethics in Waste Management to Prevent Environmental Damage: A Fatwa perspective of the Indonesian Ulema Council. [ISVS e-journal, Vol. 11, Issue 1]. <https://doi.org/10.61275/ISVSej-2024-11-01-10>

¹⁷Karimi, S., Liobikiene, G., & Alitavakoli, M., *The effect of religiosity on pro-environmental behavior based on the theory of planned behavior*, (Sustainability, 14(6), 2022), hlm. 1–18, <https://doi.org/10.3389/fpsyg.2022.745019>

understanding and waste management behavior that does not yet fully reflect Islamic ecological values.

Research on waste management has generally focused on technical aspects, institutional frameworks, government policies, environmental behavior, and community participation. Meanwhile, studies on Islamic environmental ethics have primarily highlighted normative, theological, and philosophical aspects regarding the relationship between humans and nature.^{18,19} Research specifically examining the relationship between religious understanding and waste management behavior among urban Muslim communities remains relatively limited. Yet, religious aspects play a crucial role in shaping the value orientations, norms, and social behaviors of Indonesian society.

Based on this description, this study aims to analyze the religious understanding of Muslim communities regarding waste management and to examine how this understanding is manifested in waste management behaviors in daily life. This study also seeks to explain the factors influencing the emergence of a gap between the religious values held and the waste management practices carried out by the community. The findings of this study are expected to contribute to the development of research on Islamic environmental ethics, environmental communication, environmental da'wah, and religious-values-based waste management among urban Muslim communities.

METHOD

¹⁸Haideri, A., *An Analytical Study of Islamic Faith and Ethics in the Context of Environmental Sustainability*. (Riphah Journal of Islamic Thought & Civilization, RJITC, Vol: 3, Issue: 01, 2025), <https://journals.riphah.edu.pk/index.php/jitc>

¹⁹Khasani, F., *Khilāfah, Taskhīr, and Sustainability: Reconstructing Islamic Eco-Theology through Al-Qurṭubī's Tafsīr*. (Journal Of Islamic Studies, 3 (2), 145-156, 2025), <https://doi.org/10.71039/istifham.v3i2.111>

This study employs a qualitative descriptive case-study approach to examine the relationship between religious understanding and waste management behavior among Muslim communities in Medan City. This approach was chosen because the study seeks to understand in depth the meanings, perceptions, experiences, and social constructions of the community regarding Islamic teachings on cleanliness, environmental conservation, and waste management, as well as how these understandings are manifested in everyday ecological practices.²⁰

The research was conducted in Medan Tembung Subdistrict, Medan City, North Sumatra Province. The location was selected through purposive sampling, considering that Medan Tembung is a densely populated residential area facing various waste management issues while also being predominantly Muslim. In addition, the area has relatively active religious activities through mosques, religious study groups (majelis taklim), religious gatherings (pengajian), and various community organizations, enabling the researcher to examine the connection between religious understanding and community waste management behavior.

The research data consisted of primary and secondary data. Primary data was obtained through field observations and in-depth interviews with informants selected based on their relevance to the research focus. Secondary data, meanwhile, was obtained through documentary studies encompassing government reports, waste management documents, environmental regulations, scientific

²⁰Creswell, J. W., & Poth, C. N., *Qualitative inquiry and research design: Choosing among five approaches* (4th ed.), (Thousand Oaks, CA: Sage Publications, 2018)

articles, and various literature relevant to the research theme. The use of secondary data is intended to strengthen interpretations and support findings obtained from the field.

The research informants were selected using purposive sampling, taking into account their knowledge, experience, and involvement in religious issues and waste management. They consisted of the Chairperson of the Baitussujud Mosque Welfare Board (BKM), representing religious leaders; a professor of Islamic Communication and Broadcasting who is also a preacher, representing Muslim scholars; the Head of the Government Affairs Section of Tembung Subdistrict, representing the government; the Chairperson of the Ndeso Waste Bank Community, representing community-based waste managers; and Muslim residents of Bandar Selamat, Bantan, and Tembung. This diversity of informants was intended to provide a comprehensive perspective on the relationship between religious understanding and waste management practices in community life.

Data collection was conducted through participatory observation, in-depth interviews, and documentation. Observations were carried out in residential areas, public facilities, mosque surroundings, and locations where community waste management activities take place. The observations aimed to identify environmental cleanliness conditions, community behavior regarding waste disposal and management, and forms of social participation related to environmental management. In-depth interviews were conducted using a semi-structured approach based on an interview guide designed according to the research focus, enabling the researcher to obtain broader and deeper information from the informants.

Generally, the interviews focused on several key aspects, namely: (1) informants' understanding of the concepts of cleanliness, the

environment, and ecological responsibility within Islamic teachings; (2) informants' views on the relationship between environmental conservation and religious practices; (3) community behavior regarding household waste management; (4) the level of community concern regarding environmental cleanliness; (5) factors influencing the low level of awareness regarding waste management; and (6) the role of religious leaders, religious institutions, environmental communities, and the government in fostering ecological awareness among the community.

All interview results were transcribed and classified based on themes relevant to the research objectives. The transcription process was conducted to preserve data integrity while facilitating the researcher's identification of patterns, categories, and meanings emerging from the informants' statements. Subsequently, the transcribed data was organized into a thematic matrix to facilitate the processes of data reduction, categorization, and interpretation.

Data analysis was conducted using the interactive analysis model developed by Miles, Huberman, and Saldaña,²¹ which comprises three main stages: data condensation, data display, and drawing and verifying conclusions. In the data condensation stage, the researcher selected, simplified, and grouped the data based on themes related to religious understanding, Islamic environmental ethics, and waste management behavior. The next stage involved presenting the data in the form of a narrative description accompanied by informant quotes to strengthen the interpretation. The final stage involved drawing conclusions gradually through a process of repeated verification of all data collected in the field.

²¹Matthew B. Miles, A. Michael Huberman, and Johnny Saldaña, *Qualitative Data Analysis: A Methods Sourcebook*, 3rd ed, (Thousand Oaks, CA: SAGE Publications, 2014)

Data validity was ensured through source triangulation and methodological triangulation. Source triangulation was conducted by comparing information obtained from religious figures, government officials, waste management communities, and the general public. Meanwhile, methodological triangulation was performed by comparing results from interviews, observations, and documentation. The use of this triangulation aims to enhance the credibility of the research findings so that the resulting interpretations possess a stronger level of validity.²²

This study employs the perspective of Islamic environmental ethics as an analytical framework to understand the relationship between religious understanding and waste management behavior among Muslim communities. Research findings are analyzed based on the concepts of khalifah, amanah, mizan, and ecological responsibility as explained in the Qur'an, hadith, and contemporary studies of Islamic environmental ethics. With this approach, this study is expected to provide a deep understanding of how the religious understanding of Muslim communities relates to waste management behavior, while also explaining the various factors causing the gap between the religious values they hold and the ecological practices carried out in daily life.

RESULTS AND DISCUSSION

Muslim Communities' Understanding of Waste Management

The research findings indicate that the Muslim community in Medan possesses a relatively strong religious understanding regarding the importance of maintaining cleanliness and preserving the environment. This understanding is rooted in Islamic teachings that view

²²Moleong, L. J, *Metodologi penelitian kualitatif* (Edisi revisi), (Bandung: PT Remaja Rosdakarya, 2021), hlm. 330

cleanliness as an integral part of faith, while also positioning humanity as stewards responsible for maintaining and preserving the balance of nature. This understanding was consistently found among informants from religious leaders, academics, government officials, and the general public. These findings indicate that Islamic ecological values have become part of the community's normative consciousness, although the level of their implementation in daily life remains varied.

The interview results indicate that the environment is understood not merely as the physical space where humans live, but as a trust that must be safeguarded as an act of obedience to Allah SWT. This understanding is evident in the explanation given by the Chairperson of the Baitussujud Mosque Welfare Board (BKM), who stated:

"Preserving the environment is humanity's responsibility as Allah's creations. Nature must be protected and cared for because a clean and healthy environment benefits human life. Damaging the environment, such as littering, is considered an improper act in Islam" (Elyas, Chairperson of the Baitussujud Mosque Welfare Board, interview, 2026).

This statement shows that the community's religious understanding of waste management is not limited to physical cleanliness but is also connected to humanity's moral responsibility toward God's creation. From an Islamic perspective, humans are positioned as *khalifah fil ardh*, entrusted with the responsibility to manage the earth accountably. This concept of stewardship does not grant humans the right to exploit nature freely, but rather entails the obligation to maintain the sustainability of life and prevent environmental damage. Shihab explains that stewardship is a divine mandate requiring humans to maintain a balanced relationship between themselves, fellow humans, and the universe.²³ Therefore, actions that cause environmental

²³Shihab, M. Q., *Khilafah: Peran manusia di bumi*. (Ciputat: Lentera Hati, 2022)

pollution or damage, including littering, can be understood as a form of neglect of the stewardship mandate granted by Allah SWT.

This finding is also consistent with the perspective of contemporary Islamic environmental ethics, which positions humanity as the steward of life's sustainability. Islamic environmental ethics is built upon the principles of khalifah, amanah, and ecological justice, which require humanity to utilize natural resources responsibly. Meanwhile, Haideri asserts that the principles of tawhid, khalifah, mizan, hikmah, and 'adalah constitute the primary foundations of Islamic environmental ethics, guiding humanity to maintain ecological balance.²⁴ Thus, the public's understanding of waste management as a religious responsibility indicates the internalization of Islamic environmental ethical values within their consciousness.

This study also found that the public's understanding of cleanliness is largely shaped by the concept of thaharah, which is taught from an early age. For the majority of informants, cleanliness is understood as a primary prerequisite for performing worship and drawing closer to Allah SWT. This is reflected in the perspective of Prof. Dr. Muhammad Habibi Siregar, M.A., who explains:

"The concept of cleanliness in Islam, normatively speaking, has two aspects: external and internal cleanliness. Before prayer, we are commanded to perform thaharah. Personal cleanliness, the cleanliness of the home, and the environment are essential components in drawing closer to Allah" (Muhammad Habibi Siregar, interview, 2026).

This data indicates that the public's understanding of cleanliness is shaped through ritual practices that occur continuously in daily life. The habits of performing wudu, maintaining the purity of clothing, cleaning

²⁴Haideri, A., *An Analytical Study of Islamic Faith and Ethics in the Context of Environmental Sustainability*. (Riphah Journal of Islamic Thought & Civilization, RJITC, Vol: 3, Issue: 01, 2025), <https://journals.riphah.edu.pk/index.php/jitc>

the home, and preserving the surrounding environment serve as vehicles for internalizing values of cleanliness, which in turn foster the public's ecological awareness. This finding indicates that religious experiences and worship practices play a significant role in shaping the community's perspective on the environment.

This perspective aligns with Khasani's findings, which explain that the hadiths of the Prophet Muhammad (peace be upon him) contain ecological principles that position cleanliness as an integral part of a Muslim's life.²⁵ According to Khasani, the concept of cleanliness in Islam is not limited to ritual aspects but also encompasses the responsibility to maintain environmental cleanliness and prevent various forms of ecological damage. Thus, the routine practice of *thaharah* actually possesses an ecological dimension that can serve as the foundation for fostering responsible environmental behavior.

In addition to the concept of cleanliness, this study also indicates that the community perceives the environment as part of a system of life whose balance must be maintained. This understanding aligns with the concept of *mizan* in Islam, which emphasizes the importance of preserving natural balance. Sya'roni et al. explain that *mizan* is a foundational principle in Islamic environmental ethics, requiring humans to maintain the harmonious relationship between humanity and nature.²⁶ Environmental degradation is viewed as a violation of the balance established by Allah SWT within the system of life. Therefore, maintaining environmental cleanliness and managing waste

²⁵Khasani, F., *Khilāfah, Taskhīr, and Sustainability: Reconstructing Islamic Eco-Theology through Al-Qurṭubī's Tafsīr*. (Journal Of Islamic Studies, 3 (2), 145-156, 2025), <https://doi.org/10.71039/istifham.v3i2.111>

²⁶Sya'roni, M., et al., *Ecotheological Insights from Prophetic Hadiths: Reframing Islamic Environmental Ethics Based on SDGs*, (Pharos Journal of Theology ISSN 2414-3324 online Volume 106 (5) Regular Issue, 2025), <https://doi.org/10.46222/pharosjot.106.51>

responsibly can be understood as efforts to preserve ecological balance, which is an integral part of Islamic teachings.

Research findings also indicate that religious institutions play a significant role in shaping public understanding of waste management. Mosques, religious study groups, and other religious activities serve as channels for transmitting environmental values to the community. The Chairperson of the BKM at Baitussujud Mosque explained that the themes of cleanliness and the environment are frequently addressed in sermons and religious lectures. Similar findings were reported by the Tembung Subdistrict government, which actively involves religious leaders in environmental cleanliness campaigns.

According to the Head of the Tembung Subdistrict Administration: *"During regular religious study sessions, imams and female religious instructors are asked to convey messages about the importance of maintaining environmental cleanliness as part of one's faith"* (Suryati, Head of the Tembung Subdistrict Government Affairs Office, interview, 2026).

These findings indicate that religion remains a strong source of social legitimacy in fostering environmental awareness among Muslim communities. In religious societies, environmental messages conveyed by religious leaders tend to have higher acceptance rates because they are perceived as having a strong moral and spiritual foundation. From a da'wah communication perspective, this situation demonstrates that religious institutions possess strategic potential as agents of social change in building an ecological culture within the community.

Overall, the research findings indicate that the Muslim community in Medan possesses a relatively strong religious understanding regarding waste management and environmental conservation. Values such as cleanliness (tanzif), trustworthiness (amanah),

stewardship (khalifah), balance (mizan), and the prohibition against causing harm to the earth have become integral to the community's normative consciousness. These findings reinforce the view that Islamic teachings actually provide a strong theological and ethical foundation for the development of responsible environmental behavior. However, the strength of this religious understanding has not automatically resulted in waste management behaviors consistent with the values held. It is this finding that leads to the subsequent discussion regarding the gap between religious understanding and waste management behavior in daily life.

The Gap Between Religious Understanding and Waste Management Behavior

Although this study indicates that the Muslim community in Medan possesses a relatively strong religious understanding regarding the importance of maintaining cleanliness and environmental sustainability, field findings reveal a significant gap between this understanding and actual waste management practices in daily life. This gap is a key finding of the research as it demonstrates that the internalization of religious values has not yet been fully realized in the community's ecological practices.

The interview results indicate that nearly all informants understand that maintaining cleanliness is part of Islamic teachings and a form of human responsibility as stewards of the earth. However, at the same time, the waste management practices carried out by the community remain rudimentary and do not yet reflect the principles of sustainable waste management. Most community informants admitted that they do not consistently sort household waste, even though they understand the importance of maintaining environmental cleanliness.

This gap is clearly reflected in the accounts of community informants. H. Rudi Hermanto stated that household waste is not separated at home but collected in one place before disposal:

"No, we don't sort our household waste. We collect it all in one place and then throw it in the trash" (H. Rudi Hermanto, interview, 2026).

Juli expressed a similar view, noting that household waste is usually placed together in a single bin:

"No, I don't sort household waste. I usually put all the waste together in one trash bin" (Juli, interview, 2026).

These findings indicate that the community's waste management behavior remains focused on final disposal rather than on reduction, reuse, or sorting waste at the source. Yet, waste sorting is a key indicator of sustainable waste management behavior. Thus, there is a clear discrepancy between normative awareness regarding the importance of maintaining cleanliness and concrete behavior in managing daily waste.

From the perspective of the Theory of Planned Behavior (TPB), an individual's behavior is not determined solely by their knowledge but is also influenced by their attitude toward the behavior, subjective norms, and perceived behavioral control. The findings of this study indicate that the community fundamentally holds positive attitudes toward environmental cleanliness rooted in religious teachings. However, these attitudes do not always translate into concrete actions in waste management due to social and structural factors that have developed within community life.

Interestingly, this gap is not only found among the general public but is also acknowledged by Prof. Muhammad Habibi Siregar, who explains that the main issue faced does not lie in the public's lack of

knowledge regarding cleanliness, but rather in the weak collective awareness of environmental preservation.

"The awareness to maintain cleanliness is not collective; it remains individual" (Muhammad Habibi Siregar, interview, 2026).

This statement indicates that environmental issues cannot be explained solely through a knowledge-based approach. People may understand a certain value, but that does not necessarily mean they will adopt it as a behavioral guideline in their daily lives. In this context, the issue of waste is more closely tied to social-cultural issues than to a lack of information or religious understanding.

The findings of this study show that the ritual piety held by the community has not yet fully transformed into ecological piety. Religious activities such as congregational prayer, religious study sessions, devotional recitations, and various other religious activities take place actively. However, these activities do not always correlate directly with concern for the surrounding environment. This situation indicates that the dimension of *hablum minallah* is practiced more dominantly compared to the dimension of human responsibility toward the environment as part of *hablum minal 'alam*.

From Shihab's perspective, environmental degradation is not caused by the absence of Islamic teachings on environmental conservation, but rather by humanity's failure to implement the trust of *khalifah* in concrete actions.²⁷ The concept of *khalifah* demands that humans not only understand religious values normatively but also translate them into behaviors that safeguard the sustainability of life and environmental balance. Thus, the gap identified in this study indicates that Islamic ecological values have been understood at the

²⁷Shihab, M. Q., *Khalifah: Peran manusia di bumi*. (Ciputat: Lentera Hati, 2022)

cognitive level but have not yet fully developed into practical ethics guiding daily waste management behavior.

In addition to internal factors, this study found that culture and social customs have a significant influence on community behavior. The Chairperson of the BKM at Baitussujud Mosque stated that the low level of public concern regarding waste management is influenced by long-standing customs.

"There are still many people who do not care about waste management due to a lack of awareness and the habit of maintaining cleanliness" (Elyas, Chairperson of the BKM at Baitussujud Mosque, interview, 2026).

This statement indicates that the behavior of littering has become a social habit that is difficult to change through the mere dissemination of information or religious advice. From a TPB perspective, this condition is related to subjective norms, which refer to individuals' perceptions of what is considered acceptable and socially approved within their social environment. When behavior that shows little concern for the environment becomes a collective habit, individuals tend to follow the patterns of behavior prevalent in society even though they understand that such actions contradict religious values.

This finding reinforces the results of Yandri et al.,²⁸ which indicate that subjective norms have a significant influence on household waste management behavior. Therefore, behavioral change cannot be achieved solely through increased religious knowledge but also requires changes in the culture and social norms that have developed within society.

²⁸Yandri, P., et al., *Subjective norms, behavioral intention, and household waste management behavior: An application of the theory of planned behavior*, (Jurnal Pengelolaan Sumberdaya dan Lingkungan Vol 15 No. 5, 2025), <https://journal.ipb.ac.id/jpsl/index>

In addition to social norms, this study also found that structural factors influence community waste management behavior. Although the government has provided a waste collection system, community participation in utilizing this service remains suboptimal. The Head of the Tembung Subdistrict Administration explained:

"Many residents want their waste collected but are reluctant to pay the monthly fee of Rp15,000" (Suryati, interview, 2026).

This finding indicates that waste management issues are not only related to environmental awareness but also to the community's social commitment to supporting the established waste management system. Within the TPB framework, this situation relates to perceived behavioral control, namely an individual's perception of their ability and opportunity to take action. Jacob and Dwipayanti explain that waste management behavior is more likely to develop if the community feels they have adequate support, access, and opportunities to do so.²⁹

The same issue is also found in the management of the Ndeso Waste Bank. The head of the waste bank community explained that the greatest challenge faced is not in the technical aspects of waste management, but in the mindset of the community, which still views waste as an unimportant issue.

"Many people still view the waste problem as not a serious matter, so they continue to dispose of waste in rivers or other inappropriate places" (Muhammad Siddiq Zaelani, interview, 2026).

This finding indicates that the public's attitude toward waste remains the primary obstacle to fostering sustainable waste

²⁹Jacob, J., & Dwipayanti, N. M. U., *Planned Behavior Theory Approach to Waste Management Behavior in South Denpasar District*, (Jurnal Promkes: The Indonesian Journal of Health Promotion and Health Education Vol. 10 No. 2, 2022) hlm. 118-129

management practices. In fact, from the perspective of Islamic environmental ethics, the act of littering not only causes ecological harm but also contradicts the principles of amanah, mizan, and the prohibition against causing corruption on Earth (fasad fi al-ardh). Khasani³⁰ and Sya'roni et al., explain that cleanliness (tanzif) and environmental conservation are integral parts of a Muslim's responsibility in maintaining the balance of life.³¹

The findings of this study are also consistent with the results of Karimi et al., which indicate that religiosity does not always directly result in pro-environmental behavior.³² The influence of religiosity on environmental behavior is generally mediated by environmental attitudes, social norms, and perceptions of behavioral control. Similar findings were presented by Begum et al., who explained that religious values require a continuous process of internalization to be manifested in concrete actions.³³ In other words, a sound religious understanding is an important factor, but it is insufficient to produce ecological behavior if not supported by a social environment and systems that enable the practice of such values.

In the context of this study, the process of internalizing environmental values through religious institutions has also not been optimal. An interesting finding was presented by Prof. Muhammad

³⁰Khasani, F., *Khilāfah, Taskhīr, and Sustainability: Reconstructing Islamic Eco-Theology through Al-Qurṭubī's Tafsir*. (Journal Of Islamic Studies, 3 (2), 145-156, 2025), <https://doi.org/10.71039/istifham.v3i2.111>

³¹Sya'roni, M., et al., *Ecotheological Insights from Prophetic Hadiths: Reframing Islamic Environmental Ethics Based on SDGs*, (Pharos Journal of Theology ISSN 2414-3324 online Volume 106 (5) Regular Issue, 2025), <https://doi.org/10.46222/pharosjot.106.51>

³²Karimi, S., Liobikiene, G., & Alitavakoli, M., (The effect of religiosity on pro-environmental behavior based on the theory of planned behavior. *Sustainability*, 14 (6), 1–18, 2022), <https://doi.org/10.3389/fpsyg.2022.745019>

³³Begum, H., Alam, A. S. A. F., Awang, A. H., Ghani, A. B. A., & Siddiqui, B. A., *Religiosity and environmental responsibility: The role of Islamic values in pro-environmental behavior*. *Sustainability*, 13(3), 2021), hlm. 1456. <https://doi.org/10.3390/su13031456>

Habibi Siregar, who observed that environmental issues are still rarely the main theme in religious lectures and sermons.

"It is very rare for the themes of cleanliness and the environment to be specifically addressed in sermons at mosques, even though this is very important" (Muhammad Habibi Siregar, interview, 2026).

This finding indicates that there remains significant room to strengthen the role of mosques, religious study groups, and various da'wah activities in fostering a community culture of waste management. Environmental da'wah needs to be developed not merely as the delivery of normative messages, but also as an instrument of social transformation capable of fostering ecological habits through concrete, community-based programs.

Overall, this study demonstrates that the relationship between religious understanding and waste management behavior among Muslim communities in Medan is not linear. A strong religious understanding does not automatically result in good waste management behavior. This gap is influenced by cultural factors, social norms, community participation, facility support, perceptions of behavioral control, and the incomplete transformation of religious values into social-ecological practices. These findings indicate that waste management issues among urban Muslim communities cannot be adequately resolved through increased religious knowledge alone, but require a more integrative approach through synergy between environmental education, ecological da'wah, strengthening of social norms, government policy support, and the empowerment of waste management communities.

CONCLUSION

Based on the description of the results and discussion, it can be concluded that: (1) The Muslim community in Medan generally



possesses a sound religious understanding of the importance of maintaining cleanliness and the environment. This understanding stems from Islamic teachings regarding cleanliness as part of faith, the concept of humanity as stewards of the earth, and the belief that protecting the environment is a form of worship and a responsibility to Allah SWT. This understanding was consistently found among religious leaders, government officials, waste bank managers, and the general public; (2) The community's religious understanding of waste management is acquired through various channels of socialization, particularly family, formal education, religious study groups, religious lectures, and social experiences in daily life. Additionally, religious leaders and mosques are viewed as playing a crucial role in fostering environmental awareness among the public; (3) Although the public's religious understanding is generally sound, waste management behaviors still exhibit various shortcomings. Most of the community is not yet accustomed to sorting household waste; instances of indiscriminate waste disposal are still found, compliance with sanitation fee systems remains low, and participation in community-based waste management activities is limited; and (4) Research findings indicate a gap between religious understanding and waste management behavior. This gap is influenced by low collective awareness among the community, strong social habits that are not environmentally friendly, limited waste management facilities, and the suboptimal transformation of religious values into daily ecological practices. Thus, the issue of waste management among the Muslim community in Medan City does not lie in a lack of religious understanding, but rather in the weak implementation of religious values in environmental behavior.

Based on these conclusions, environmental da'wah needs to be strengthened not only as a means of conveying normative religious values but also as an instrument for encouraging behavioral change in the community regarding waste management. Therefore, this study recommends collaboration between local governments, religious institutions, mosque administrators, environmental communities, and educational institutions in developing environmental education programs based on Islamic values. Additionally, there is a need to strengthen waste management facilities, develop community-based waste banks, and integrate environmental issues into sermons, Friday sermons, and religious activities on an ongoing basis so that Islamic values regarding cleanliness and human responsibility as stewards of the earth can be realized in daily life practices.

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