

INTEGRATING ISLAMIC ENVIRONMENTAL ETHICS, STATE REGULATORY SYSTEMS, AND BEHAVIORAL GOVERNANCE TO STRENGTHEN WASTE MANAGEMENT PRACTICES

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Info Artikel	DOI: 10.20885/tullab.vol8.iss1.art12
Article History	E-mail Address
Accepted: December 15, 2025 Published: January 10, 2026	014210101@uui.ac.id
ISSN: 2685-8924	e-ISSN: 2685-8681

ABSTRAK

This study examines poor waste management as an environmental, ethical, and governance challenge by integrating insights from Islamic jurisprudence, state regulations, and behavioral governance. The aim is to explain how ecological degradation arises from human behavior that contradicts religious principles and formal waste management laws, and to propose a conceptual model linking ethical norms to regulatory mechanisms and behavior. Using a qualitative conceptual methodology, the study analyzes scriptural sources, classical jurisprudential reasoning, national waste regulations, and descriptive evidence of environmental conditions to build an interdisciplinary understanding of this issue.

The results show that Islamic jurisprudence establishes clear prohibitions against actions that result in environmental damage, framing waste pollution as a violation of ethical and legal obligations. National regulations also mandate responsible waste management practices, yet poor management persists because behavioral changes have not aligned with legal expectations. This analysis highlights the central role of human behavior as a determining factor in waste governance, illustrating how religious education, societal norms, and institutional policies shape or hinder responsible practices. The integrated model developed in this study demonstrates that effective waste governance requires the convergence of moral awareness, legal enforcement, and behavioral adaptation. This study concludes that sustainable environmental management in a Muslim-majority context depends on aligning internal ethical motivations with external regulatory frameworks. This conceptual integration offers a foundation for future empirical research and suggests new pathways for policy design, community engagement, and faith-based environmental education.

Keywords: Environmental Ethics; Islamic Jurisprudence; Public Policy; Waste Management; Waste Regulations, Behavioral Governance

A. INTRODUCTION

The increasing global environmental degradation has intensified scientific and policy discussions around waste management, particularly in rapidly urbanizing societies. In many developing countries, including Indonesia, waste accumulation has reached critical levels, reflected in recurring crises in municipal landfills and the overflow of household and industrial waste into public spaces, rivers, and coastal zones. This phenomenon is not only an environmental issue but also a multidimensional social problem that endangers public health, disrupts community life, and accelerates ecological decline. In Yogyakarta, for example, the temporary closure of the Piyungan Landfill caused widespread disruption and heightened public anxiety, highlighting the fragility of the region's waste management infrastructure. These events underscore the urgency of advancing a holistic and sustainable approach to waste management.

More broadly, the proliferation of plastic waste has emerged as a global environmental emergency. Plastic pollution, which persists throughout terrestrial and marine ecosystems, is largely caused by improper disposal practices and deficiencies in waste management systems (Anisa Safari Putri, 2022). Scientific studies estimate that between 10 and 20 million tons of plastic enter the world's oceans annually, contributing to the accumulation of approximately five trillion microplastic particles drifting in the marine environment. Indonesia is among the world's leading contributors to marine plastic debris, ranking second after China, followed by the Philippines, Vietnam, and Sri Lanka, according to a widely cited study by Jenna Jambeck published in *Science* (2015). This situation highlights the need for integrated environmental governance, strengthened social responsibility, and behavioral transformation at the community level.

In the Indonesian context, waste management has traditionally relied on "end-of-the-pipe" solutions—collection, transportation, and disposal of waste without a systematic process of reduction, reuse, or recycling. Such a linear pattern inevitably results in long-term ecological burdens and socio-economic externalities. The problem of poor waste management is not limited to land-based systems; plastic pollution has disrupted freshwater and marine biodiversity and led to marine animal deaths (Ameria Sendjaya et al., 2021), including cases where whales have been found with large amounts of plastic debris in their stomachs. Consequently, there is widespread recognition that technical or regulatory interventions alone

cannot fully mitigate the crisis. Societal norms, ethical orientations, and religious values must also play a central role.

The policy field has responded with increasingly comprehensive regulations governing waste reduction, recycling, and environmentally sound disposal. This includes national laws such as Law No. 18/2008 on Waste Management and Law No. 32/2009 on Environmental Protection and Management, both of which provide the legal framework for household and municipal waste management. Government regulations, including Government Regulation No. 81/2012 on Household Waste Management and Government Regulation No. 27/2020 on Special Waste Management, strengthen operational guidelines and mandate community participation, recycling initiatives, and waste reduction efforts. Regional authorities, such as the Special Region of Yogyakarta, have also enacted their own directives to ensure localized environmental management. However, despite this regulatory architecture, persistent behavioral and cultural challenges hinder effective implementation.

From an Islamic perspective, environmental preservation is not only a technical obligation but also a moral and theological imperative. Waste, environmental damage, and pollution are included in the broader condemnation of actions that cause *mafsadah* (damage), which Islamic law seeks to prevent. Foundational texts consistently emphasize the prohibition of causing harm and the obligation to maintain the integrity of the natural environment. The Qur'anic command in QS al-Qaṣaṣ 28:77 warns believers not to create mischief on earth and orders them to act with kindness. Likewise, prophetic traditions encourage cleanliness as part of the faith, while legal principles such as *al-ḍarar yuzāl* (harm must be eliminated) and *dar' al-mafāsid muqaddam 'alā jalb al-maṣāliḥ* (preventing harm takes precedence over obtaining benefits) form the normative basis of Islamic ecological ethics (Mukhlis, 2022).

The discipline of *fiqh al-bi'ah* (Islamic environmental jurisprudence) has evolved to address modern ecological challenges, including waste management. Contemporary scholars argue that Islamic law not only prohibits harmful acts such as littering but also mandates proactive environmental management. This includes compliance with state regulations, as obedience to those in authority is a religious obligation as long as their directives align with the public interest (*maslahah*). Within this framework, waste management becomes both a legal responsibility and a religious obligation, highlighting the potential of Islamic jurisprudence to

shape ethical behavior, enforce compliance, and strengthen environmental governance systems (Gani et al., 2025).

Recent literature demonstrates that effective waste management requires the integration of regulatory, technological, and behavioral dimensions. Studies emphasize that behavioral transformation—rooted in awareness, ethical commitment, and normative guidance—is crucial to achieving sustainable waste management (Mun'im, 2022). Islamic jurisprudence offers a unique ethical-normative foundation that can support this transformation by framing waste management as a moral obligation, not merely a civil responsibility. However, empirical research linking Islamic legal principles to concrete behavioral outcomes remains limited, particularly in the context of local environmental governance and community participation.

Therefore, this study seeks to address this gap by examining how Islamic jurisprudence (*fiqh al-bi'ah*), specifically the emerging concept of “waste jurisprudence” (*fiqh al-nuzhah/fiqh al-qimāmah*), can inform and improve the governance of human behavior in waste management. By synthesizing classical Islamic legal sources, contemporary jurisprudential interpretations, and existing environmental regulations, this study aims to build a coherent conceptual model that explains how Islamic legal norms can influence ethical behavior and community engagement in waste management practices.

This study makes a novel contribution by explicitly situating Islamic jurisprudence within the interdisciplinary discourse of environmental governance. While previous works have explored Islamic perspectives on hygiene or general ecological ethics, few have systematically analyzed waste governance through the integrated lens of *fiqh*, and public regulation. This study also extends the literature by articulating how Islamic normative principles can complement state regulatory frameworks to foster public compliance with sustainable waste management practices. The scope of this study is conceptual and normative, focusing on textual analysis, legal interpretation, and theoretical synthesis rather than empirical measurement. Nonetheless, its insights lay the groundwork for future empirical studies on behavioral compliance and environmental ethics in Muslim-majority contexts.

B. LITERATURE REVIEW

Conceptual Foundation of Environmental Degradation and Waste

Environmental degradation caused by unmanaged waste has become a critical issue affecting ecosystems, public health, and social well-being. Waste, defined under Indonesian law

as the material residue of daily human activities or natural processes, includes both organic and inorganic materials (UU RI, Nomor 18 Tahun 2008). Organic waste decomposes naturally, while inorganic waste—especially plastic—persists in ecosystems, causing severe environmental and biological damage. The magnitude of waste pollution is evident in global findings, including studies reporting trillions of plastic particles floating in the world's oceans and numerous documented cases of marine animals dying from ingesting plastic (Khan & Rabbani, 2024; Thiemann, 2023).

The conceptualization of waste within Islamic environmental ethics highlights its destructive potential when not properly managed. Unmanaged waste is categorized as a source of mafsadah (danger), as it pollutes the air, land, and water, which in turn threatens human health and the well-being of other living organisms. This aligns with broader environmental studies that emphasize the multidimensional consequences of improper waste management, such as flooding, disease transmission, biodiversity loss, and social disruption (Adelse Prima Mulya et al., 2024). These environmental hazards underscore the need for a governance system that addresses waste holistically—from generation to final disposal.

Principles of Environmental Management Based on Fiqh

Islamic jurisprudence offers a normative and ethical framework that encourages environmental stewardship and prohibits destructive behavior. Foundational texts—Quranic verses and hadith—establish the theological foundation for environmental management. The Quran condemns corruption and corruption on earth (Surat al-Qasas: 77; Surah al-Rum: 41), emphasizing that environmental damage results from human actions and therefore must be remedied through responsible behavior (Gani et al., 2025).

Fiqh literature provides further elaboration on these principles. The key legal principles—al-darar yuzal (harm must be removed) and dar' al-mafasid muqaddam 'ala jalb al-masalih (preventing harm takes precedence over gaining benefits)—form the ethical basis for waste management. These principles position poor waste management as prohibited (haram or at least makruh), especially when it harms others or damages the environment. Classical jurists, including al-Ghazali and al-Ramli, emphasized the individual's responsibility to prevent public harm, which analogously applies to modern issues of improper waste disposal (Amatullah et al., 2024).

Islamic teachings on cleanliness (*al-nazafah*) and environmental preservation reinforce this obligation. Prophetic traditions describe cleanliness as part of faith and depict God as Most Pure and Lover of Purity, urging believers to maintain a clean environment. Additional narrations promote environmental restoration—even in eschatological scenarios—highlighting the spiritual virtue of ecological care (Ahmad, 2020).

Therefore, *fiqh* operates on two levels: an ethical framework that guides individual behavior and a normative framework that informs public policy. Because moral advice alone is insufficient to ensure compliance, *fiqh* must interact with legal regulations to form a comprehensive governance system capable of addressing the ecological crisis (Husna Amin, 2025). This dual role positions Islamic jurisprudence as both a moral compass and a legal reference for waste management in Muslim societies.

Regulatory System Governing Waste Management in Indonesia

Indonesia has established a substantial regulatory framework for waste management, consisting of national laws, government regulations, and ministerial decrees. The main instrument is the Waste Management Law (Law No. 18/2008), which defines waste and establishes principles for waste reduction and handling. Subsequent regulations—such as Government Regulation No. 81/2012 on household waste, Government Regulation No. 27/2020 on special waste, and Government Regulation No. 22/2021 on environmental management—provide detailed operational guidelines.

Regulations addressing hazardous waste (B3 waste) further strengthen governance responsibilities for sectors producing toxic materials, requiring storage, transportation, utilization, and disposal under strict licensing mechanisms. Regional governments also have the authority to issue regional regulations, including provincial waste policies such as those enacted in Yogyakarta to address the local waste crisis (Eprianti et al., 2021).

This legal framework reflects a shift from the outdated "end-of-the-pipe" model toward integrated, upstream-downstream waste governance. However, recurring environmental crises—floods, landfill collapses, marine pollution—demonstrate a gap between regulatory design and public compliance. This gap underscores the need to integrate legal structures with behavioral and religious approaches to strengthen implementation (Afriana & Hidayat, 2022).

Socio-Religious Behavioral Responses to Waste Governance

Behavioral governance is crucial because waste problems originate at the household and community level. Islamic jurisprudence offers behavioral imperatives that support compliance with environmental regulations. The obligation to obey *ulil amri*, including compliance with government waste regulations, strengthens Islamic accountability and aligns legal compliance with religious obligations (Gani et al., 2025). This creates a synergy between spiritual awareness and civic responsibility, encouraging behavior that reduces environmental damage.

Research and community observations indicate that internalizing religious values—through sermons, educational programs, community campaigns, and digital media—can meaningfully shape environmental behavior. When communities understand the dangers associated with waste through a scientific and religious lens, participation in waste reduction, recycling, and environmental conservation tends to increase (Siswantara et al., 2022).

Examples from urban environments and educational institutions demonstrate how religious motivation, supported by institutional policies, leads to improved waste management practices. University-level initiatives promoting waste reduction and recycling illustrate how organizational governance intersects with ethical-environmental behavior (M. Quraish Shihab, 2023). These practices demonstrate the potential for religiously grounded behavioral governance to complement formal legal mechanisms.

Research Gaps

The existing literature reveals that waste governance in Indonesia has been extensively explored from legal, environmental, and public policy perspectives. Similarly, Islamic environmental ethics provides comprehensive moral and normative guidance on responsible waste management. However, scholarly studies have not sufficiently integrated these perspectives into a cohesive analytical framework that explains how Islamic jurisprudence can influence, strengthen, or transform human environmental behavior in modern waste management systems.

Specifically, gaps remain in: (1). Synthesizing *fiqh*-based ethical imperatives with state regulatory frameworks to build a cohesive environmental governance model. (2). Analyze behavioral governance through the combined lens of religion and law, specifically how Muslim communities internalize *fiqh*-based ecological values. (3). Understand the practical mechanisms that translate *fiqh* principles into measurable environmental behavior in everyday waste management. (4). Evaluate the role of religious institutions, legal policies, and community

structures in promoting sustainable waste management practices. This gap justifies the need for studies that bridge Islamic jurisprudence, legal regulations, and behavioral governance, demonstrating how fiqh-based principles can improve community compliance with waste management laws and contribute to resolving the waste-related environmental crisis.

C. METHOD

Research Design

This study employs a conceptual qualitative design aimed at examining the principles of Islamic jurisprudence related to waste (fiqh al-bi'ah) and analyzing their implications for the governance of human behavior. Rather than relying on empirical measurements or field data, this approach emphasizes systematic interpretation of authoritative texts, normative reasoning, and regulatory analysis. This conceptual orientation aligns with the thematic nature of this study, which explores environmental degradation, legal regulations, fiqh reasoning, and behavioral outcomes as presented in source documents. This design allows for a rigorous, theory-based discussion that integrates Islamic legal principles with contemporary environmental governance.

Data Sources

This study exclusively utilizes secondary data, as reflected in documents, which consist of five main categories:

1. Scriptural sources: Qur'anic verses such as QS al-Qasas: 77 and interpretive commentaries, including Ibn Kathir's Tafsir al-Qur'an al-'Adhim.
2. Hadith Literature: Canonical narrations on environmental ethics and cleanliness, such as "cleanliness is part of faith" and narrations that encourage cultivation even in eschatological circumstances.
3. Classical and contemporary fiqh references
4. Legal and regulatory documents: Indonesian laws and regulations on waste management, such as Law No. 18/2008, Government Regulation No. 81/2012, Government Regulation No. 27/2020, and regional regulations, including Yogyakarta Governor Regulation No. 21/2014.
5. Conceptual and descriptive environmental data: including descriptions of waste types, environmental impacts, plastic pollution, and examples of marine animal deaths due to plastic ingestion.

These sources are not used as empirical evidence but as a theoretical and normative foundation for developing a conceptual model linking fiqh, law, and behavioral governance.

Textual and Juridical Analysis Procedures

This study applies textual analysis methods to interpret Quranic verses, hadith, and fiqh discussions on environmental management. Sections relating to environmental damage, harm (mafsadah), and ethical responsibilities are examined within their jurisprudential and moral contexts. Interpretive attention is paid to verses condemning corruption and environmental damage, such as Surah al-Rum: 41 and Surah al-Qasas: 77, which underlie the principal obligation to prevent environmental degradation.

Concurrently, a normative jurisprudential analysis is conducted to evaluate the alignment between Islamic legal norms and existing waste management regulations. Legal documents such as Law No. 32/2009 concerning Environmental Protection, Government Regulation No. 27/2020 concerning special waste, and regulations concerning B3 waste (hazardous materials) are examined for their role in shaping responsible waste governance. This dual analysis helps explain how fiqh principles reinforce legal obligations and how regulatory frameworks operationalize ethical imperatives.

Analytical Framework for Human Behavioral Governance

This analysis integrates Islamic jurisprudence principles with behavioral governance theory by examining how religious norms, legal obligations, and social practices interact to shape human responses to waste. This document emphasizes the obligation to obey ulil amri (legitimate authorities) in public regulations, including waste governance. This establishes accountability not only in theological terms but also in civil and regulatory contexts.

Behavioral governance is examined through:

1. religious internalization: continuing education through sermons, Islamic study circles, and social media to instill fiqh values in daily practice ();
2. community-level implementation: examples from neighborhoods, educational institutions, and civil society organizations demonstrating improved waste management practices;
3. institutional initiatives: such as university-issued guidelines encouraging reduction, reuse, and recycling.
4. These elements form a layered framework that connects ethical guidance, legal structures, and community action.

D. RESULTS

Environmental Conditions and Empirical Reality of Poor Waste Management

Analysis of the source documents reveals that Indonesia's waste problem is characterized by chronic poor management, increasing environmental pollution, and significant public health implications. The documents consistently describe how excessive waste production—particularly plastic—has burdened urban systems and contributed to ecological degradation. Waste is defined as a byproduct of human activities or natural processes, consisting of organic and inorganic forms (Eprianti et al., 2021). Organic waste decomposes naturally, while inorganic waste, particularly plastic, persists in the environment for decades or centuries, causing cumulative damage (Khoiron et al., 2020).

The findings demonstrate widespread evidence of plastic pollution. Global estimates cited in the documents indicate the presence of trillions of plastic particles in the oceans (Khan & Sikder, 2024). At the national level, Indonesia is reportedly among the highest contributors to marine plastic waste, following a global analysis that ranked it second among countries dumping unmanaged waste into waters (Thiemann, 2023). The documents further refer to cases of marine animals—such as whales—found dead with large amounts of plastic debris in their digestive systems, demonstrating the severity of the ecological impact (Ameria Sendjaya et al., 2021; Anisa Safari Putri, 2022).

In addition to ecological damage, research findings indicate that uncontrolled waste management undermines societal well-being. Flooding, soil contamination, reduced biodiversity, and respiratory or digestive diseases associated with pollution are discussed as direct consequences (Ameria Sendjaya et al., 2021; Anisa Safari Putri, 2022; Malto & Mendoza, 2022). This empirical description confirms that the environmental crisis is not a trivial matter but is deeply intertwined with public health and the long-term sustainability of human habitats.

The Normative Status of Waste in Islamic Jurisprudence

A key finding of this document is the classification of poor waste management as a form of mafsadah (damage) in Islamic jurisprudence. The text emphasizes that any contaminant—whether solid, liquid, gaseous, or radiation—constitutes environmental damage that negatively

impacts humans and other creatures (Dalmi Iskandar dkk, 2023; Gani et al., 2025). This aligns waste pollution with the broader category of prohibited damage (PBNU, n.d.).

The Qur'anic basis for this normative stance is consistently emphasized. Verses such as Surah al-Qasas: 77 condemn corruption and warn believers against causing damage on Earth (Mun'im, 2022). Quranic verse 41 also emphasizes that environmental damage results from human error, linking ecological degradation to moral failure (M. Quraish Shihab, 2023). These verses are interpreted in commentaries on the Qur'an, including Ibn Kathir's Tafsir al-'Adhim (Kasir, 1999; Razi, 2012; Syaukani, n.d.; Tabari, 2000), to emphasize that humans are responsible for preventing damage and acting as stewards of creation (Ali Mursyid Azisi dkk, 2023).

Prophetic tradition reinforces this principle. Hadith narratives describe cleanliness as an integral part of faith and encourage actions that preserve or restore environmental well-being, such as planting trees, even in the eschatological state (Aulia, 2021; Limbong et al., 2023). These narratives place environmental stewardship as a spiritual and ethical obligation (Agustina, 2021).

The fiqh classification of improper waste disposal thus emerges clearly: actions that directly cause damage—such as littering in public places—are considered haram; actions that create disturbance without causing direct damage are makruh (Azzahra & Siti Maysithoh, 2024). This normative distinction is based on the legal principles of al-darar yuzal (harm must be eliminated) and dar' al-mafasid muqaddam 'ala jalb al-masalih (preventing harm precedes gaining benefit)¹ (Anggraini & Rohmatika, 2022). This document also refers to al-Ghazali and al-Ramli, who emphasize the individual's responsibility to avoid actions that cause harm to society. These findings demonstrate how classical jurisprudence can be systematically extended to address the challenges of modern waste management.

Alignment Between Islamic Norms and the Indonesian Regulatory Framework

¹ Al-Imam Jalaluddin Abd. Rahman al-Suyuti (1998), *Al-Asybah wa al-Naza'ir fi Qawa'id wa Furu' Fiqh al-Syafi'iyyah*, jil. 1. Muhaqqiq: Muhammad Hasan Muhammad Hasan Isma'il. Beirut: Dar al-Kutub al-'Ilmiyyah, h. 165. Lihat pula al-Syaikh Ahmad Ibn al-Syaikh Muhammad al-Zarqa (2001), *Syarh al-Qawa'id al-Fiqhiyyah*, cet. 6. Damaskus: Dar al-Qalam, h. 179. Sesungguhnya kaedah ini lafaz dan nas-nya berasal dari hadis Nabi Muhammad SAW dari riwayat Abu Hurairah, Ibn 'Abbas, Abi Sa'id al-Khudri, Jabir dan 'Aisyah. Lihat Ibn Majah (1395 H), *Sunan Ibn Majah*, juz 2. Beirut: Dar Ihya' al-Turath al-'Arabi, h. 784; al-Baihaqi (t.t), *al-Sunan al-Kubra*, juz 10. Beirut: Dar al-Fikr, h. 133.

The main result is the convergence between Islamic legal principles and the Indonesian regulatory framework. This document reviews a series of national and regional regulations governing waste, including Law No. 18/2008 on Waste Management, Law No. 32/2009 on Environmental Protection, Government Regulation No. 81/2012, Government Regulation No. 27/2020, and provisions regarding B3 (hazardous) waste (Eprianti et al., 2021). These laws define waste categories, outline obligations for households and industries, mandate waste reduction, and regulate the transportation, storage, utilization, and disposal of hazardous materials.

This document finds that principles of Islamic jurisprudence—such as the obligation to eliminate hazards, the responsibility to avoid damage to public spaces, and the injunction to obey *ulil amri* (the rightful owners)—strengthen the legal requirements imposed by the state. The obligation to obey legitimate authorities in matters that promote the public welfare strengthens citizens' motivation to comply with waste regulations. Thus, the research findings demonstrate that Islamic jurisprudence principles operate synergistically with statutory law, rather than in parallel or in conflict.

However, the research findings also acknowledge a gap between regulatory design and societal behavior. Despite a comprehensive legal structure, poor waste management continues to threaten environmental and social systems. This suggests that a legal framework, while necessary, is insufficient without corresponding behavioral transformation.

Human Behavior as a Key Determinant of Waste Governance

The key empirical-conceptual finding is that waste governance ultimately depends on human behavior. This paper highlights how behavioral patterns—such as littering, overconsumption, poor household waste segregation, and indifference to environmental damage—serve as key drivers of the waste crisis (Yulianto et al., 2021). Furthermore, this paper notes that environmental degradation occurs because behaviors that should be governed by ethical and legal principles are often not regulated in practice (Afriana & Hidayat, 2022).

The analysis indicates that behavioral change requires both internal and external strategies. Internal strategies include developing religious awareness and ethical discipline. External strategies include regulations, law enforcement systems, institutional interventions, and community coordination. The document repeatedly emphasizes the role of awareness,

knowledge, and moral discipline in controlling waste production (Vira Prajna Cantika et al., 2022).

In this context, religious education is identified as a crucial mechanism for shaping behavior. The document emphasizes the importance of sermons, study groups, and community involvement in instilling Islamic environmental norms into daily practice (Maslamah et al., 2020). Through these processes, individuals learn that poor waste management is not only socially irresponsible but also morally prohibited.

Further findings identify community-based and institutional initiatives as critical components of effective waste governance. This document provides examples of local practices—such as neighborhood-level waste sorting and university-led environmental campaigns—that have contributed to improved waste management (Maslamah et al., 2021; Robihah & Muhamad Joko Susilo, 2025). For example, educational institutions implement policies encouraging students and staff to minimize waste and practice recycling, demonstrating how formal rules can shape collective habits (Istiani & Muhammad Roy Purwanto, 2019; Robihah & Muhamad Joko Susilo, 2025).

These community practices reflect the integration of religious motivation, civic responsibility, and organizational policies (Isan et al., 2024). When communities internalize ethical prohibitions against harmful actions and align their actions with Islamic norms and state regulations, waste management behavior becomes more sustainable. This document suggests that this integrated model can serve as a prototype for broader policy implementation.

Conceptual Integration of Fiqh, Law, and Behavioral Governance

The results indicate that this document's most significant contribution lies in its conceptual integration of three domains:

1. Fiqh (Islamic jurisprudence): providing moral-legal imperatives against harmful waste management behavior;
2. Statutory law: offers a regulatory structure for managing waste at various levels;
3. Behavioral governance: explains how individual and community behavior can align with ethical and legal expectations.

The integration of this triad yields a holistic model of environmental governance in the Muslim context. The findings indicate that fiqh provides the ethical foundation, law defines formal obligations, and behavioral governance translates norms into practice. This

multidimensional approach addresses a core weakness in existing waste management efforts, particularly the gap between regulatory frameworks and actual behavior.

E. DISCUSSION

Interpreting the Environmental Crisis Through Principles of Islamic Jurisprudence

The results of this study indicate that environmental degradation caused by poor waste management is not simply a technical or administrative issue, but a profound moral failure rooted in human behavior. From an Islamic jurisprudence perspective, polluting the environment violates divine commands that require management (Gani et al., 2025; Husna Amin, 2025) and prevention of damage. Quranic verses such as Surah al-Qasas: 77, which commands believers not to "cause mischief on earth," provide explicit normative guidance. Similarly, Surah al-Rum: 41 describes ecological damage as a direct consequence of human wrongdoing, linking moral corruption to environmental damage. These scriptural principles establish that protecting the environment is a religious responsibility rooted in the moral order of creation (Ahmad, 2020).

The hadith literature discussed in this document reinforces this theological foundation by depicting cleanliness as an integral component of faith. The Prophet's teachings encouraging tree planting—even before the Day of Judgment—illustrate the ethical imperative to sustain life and maintain ecological balance (Agustina, 2021). A cumulative interpretation of these sources demonstrates that Islamic jurisprudence (fiqh) views environmental stewardship not as an optional virtue but as an obligation based on the principles of *maṣlaḥah* (general benefit) and *maqāṣid al-sharī‘ah* (the higher objectives of Islamic law) .

The results confirm that the legal maxims *al-darar yuzal* (harm must be eliminated) and *dar’ al-mafasid muqaddam ‘ala jalb al-masalih* (preventing harm takes precedence over gaining benefit) directly apply to the modern waste problem. Waste that pollutes water bodies, endangers marine life, contaminates soil, or endangers human health falls under the category of *mafsadah* (harm). Therefore, actions such as littering, dumping hazardous materials, or neglecting waste management systems carry clear legal and ethical consequences under Islamic law (Siswantara et al., 2022).

These findings establish that the environmental crisis is fundamentally a violation of established religious norms. The strength of the jurisprudential position offers significant

opportunities to shape behavioral change within Muslim communities by addressing moral, spiritual, and legal motivations.

Poor Waste Management as a Failure of Social and Behavioral Governance

Beyond the theological framework, these findings highlight that the environmental crisis results from a breakdown in behavioral governance. The document repeatedly emphasizes that despite extensive regulatory frameworks and religious injunctions, human behavior remains a primary driver of environmental degradation (Ali Mursyid Azisi dkk, 2023). Behavioral patterns such as overconsumption, negligent disposal practices, and disregard (Prima Mulya & Bilqis Haibah Mufidah Hasan, n.d.) for communal spaces illustrate a failure to internalize legal and religious norms.

In classical Islamic thought, actions that damage public spaces—such as roads, markets, or public facilities—are absolutely prohibited, with scholars such as al-Ghazali and al-Ramli emphasizing the impermissibility of causing harm to the public. The document's interpretation of these sources suggests that modern equivalents of such harm include improper waste disposal and environmental pollution, which undermine collective well-being.

Behavioral governance theory, as reflected in the document, suggests that sustainable behavioral change requires the convergence of internal motivations (ethical and religious awareness) and external structures (laws, regulations, and enforcement) (Adelse Prima Mulya etc, 2024). The research findings suggest that internal moral discipline cannot succeed without external institutional support, and strong laws cannot be effective without internal moral guidance. Therefore, environmental problems are not merely administrative deficiencies but profound behavioral issues that require an integrated approach.

Synergy and Tension Between Islamic Norms and State Regulations

The research findings indicate that Indonesian environmental law aligns with the ethical imperatives of Islamic jurisprudence. Laws such as Law No. 18/2008, Law No. 32/2009, Government Regulation No. 81/2012, and Government Regulation No. 27/2020 explicitly encourage waste reduction, regulate hazardous materials, and enforce obligations for responsible waste management. This alignment provides a strong foundation for cultural acceptance and religious reinforcement of legal mandates.

Furthermore, the injunction to obey *ulil amri* -legitimate authorities- establishes a religious obligation to comply with environmental regulations, positioning civil obedience as

an extension of spiritual responsibility. This synergy strengthens the legal framework's potential to effectively influence behavior.

Nevertheless, the findings indicate a persistent gap between Islamic norms, state regulations, and actual human behavior. Despite extensive regulations and strong ethical prohibitions, waste management continues to be poor, demonstrating that regulation alone is insufficient without targeted behavioral interventions. Law enforcement remains inconsistent, and public awareness varies widely across communities. This gap highlights the need for policy design that integrates religious values into regulatory communication, community mobilization, and public education.

In short, while Islamic ethics and legislation form a mutually reinforcing normative foundation, their impact is limited unless operationalized through a behavioral governance system that reaches citizens at the personal, communal, and institutional levels.

Ecological and Social Consequences of Poor Waste Management

Research documents the severe environmental and health consequences of poor waste management. Indonesia's position as one of the world's largest contributors to marine plastic waste underscores the magnitude of this problem (Ameria Sendjaya et al., 2021; Anisa Safari Putri, 2022). The presence of trillions of plastic particles in the ocean and the documented deaths of marine animals due to ingestion of plastic debris (Thiemann, 2023) illustrate the interconnectedness between human behavior, ecological collapse, and ethical responsibility.

The document further demonstrates that poor waste management contributes to flooding, water pollution, soil degradation, reduced biodiversity, and increased exposure to disease (Ameria Sendjaya et al., 2021). These consequences demonstrate the extent of the damage (mafsadah) inflicted on ecosystems and human society.

Theologically, ecosystem degradation contradicts the Qur'anic injunctions on stewardship and undermines the objectives of the *maqāṣid al-sharī'ah* (the goals of Islamic law) in preserving life, posterity, health, and property (Gani et al., n.d.; Mukhlis, 2022). Legally, such degradation violates waste management regulations designed to protect the public welfare. Socially, it erodes public trust, civil cooperation, and long-term sustainability. Thus, the ecological consequences of improper waste management serve as a concrete manifestation of the moral and legal harms identified in the legal framework.

The Role of Religious Education, Community Practices, and Institutional Structures



A key theme in this document is the crucial role of religious education and community engagement in shaping waste management behavior (Siswantara et al., 2022). Religious sermons, study groups, and community-based educational initiatives are identified as effective mechanisms for internalizing Islamic environmental ethics (Afriana & Hidayat, 2022). These forms of religious socialization translate moral principles into everyday actions (Abdul Khaliq Napitupulu & Muhammad Miqdam Makfi, 2023; Isan et al., 2024).

Community practices -such as neighborhood waste sorting, local recycling initiatives, and environmental awareness campaigns- (Amin et al., 2024a; Maskun et al., 2024) exemplify how collective behavior can reinforce ethical norms and legal expectations (Azzahra & Siti Maysithoh, 2024). Many communities in the country can be an example of communities that demonstrating improved waste management practices through coordinated action (Amin et al., 2024b), demonstrating that behavior can change when supported by social structures (Napitupulu et al., 2022).

Institutional policies, particularly in educational settings, also serve as catalysts for behavioral transformation. University-level regulations promoting reduction, reuse, and recycling demonstrate how formal guidelines can influence individual behavior while contributing to a broader cultural shift. These institutional efforts align with legal obligations and religious principles, forming a cohesive system for environmental governance. The research findings demonstrate that sustainable change requires a multi-layered approach in which individual ethics, social norms, religious motivations, and institutional policies mutually reinforce each other.

Integrating Fiqh, Law, and Behavioral Governance: Toward a Holistic Model

The most significant theoretical contribution of this paper lies in the integration of Islamic jurisprudence, legislation, and behavioral governance into a unified conceptual framework. Individually, each domain offers partial explanations for environmental outcomes; together, they produce a comprehensive model for understanding and addressing poor waste management.

1. Fiqh provides the moral and legal foundation, defining environmental damage as religiously impermissible.
2. State law offers institutional mechanisms for regulating behavior and managing waste infrastructure (Maskun et al., 2024).

3. Behavioral governance explains the human processes by which norms and regulations are translated into everyday actions (Himmatul Khoiriyah, 2021).

This integrated model aligns ethical obligations with legal structures and behavioral mechanisms, reinforcing the notion that environmental sustainability depends on both internal moral awareness and external regulatory systems.

The synthesis presented in this paper demonstrates that sustainable waste management in Muslim-majority societies requires not only effective policies and infrastructure but also religiously grounded behavioral transformation. Integrating Islamic jurisprudence (fiqh) principles with state regulations and community-based behavioral governance offers a promising strategy for addressing the persistent gap between environmental ideals and actual practices.

F. CONCLUSION

This study demonstrates that the problem of poor waste management is not simply rooted in inadequate infrastructure or regulatory gaps, but more fundamentally, in patterns of human behavior that conflict with Islamic ethical norms and established environmental regulations. By integrating principles from Islamic jurisprudence, national regulatory frameworks, and behavioral governance theory, this study provides a comprehensive understanding of how environmental degradation arises and how it can be mitigated. The findings demonstrate that Islamic legal teachings strongly prohibit actions that cause ecological damage, framing waste-related damage as a moral and legal violation. At the same time, Indonesia's regulatory system provides detailed mandates for waste reduction, management, and accountability. However, the analysis reveals that laws and ethical principles remain ineffective without the internalization of behavior supported by community structures, religious education, and institutional engagement.

This study contributes to existing knowledge by offering an integrated conceptual model linking religious ethics, legal obligations, and behavioral mechanisms. This approach highlights that environmental sustainability in Muslim-majority societies depends on aligning internal moral motivations with external regulatory instruments. The implications extend beyond waste governance, suggesting that a similar integrative model can strengthen public compliance in other environmental policy areas. Thus, this study underscores the importance of coordinated moral, legal, and behavioral interventions in promoting ecological management.

Study Limitations

This study is conceptual in nature and relies entirely on secondary materials contained in primary documents. As such, it does not include empirical data, field observations, or statistical measurements that could validate behavioral patterns or evaluate the effectiveness of legal and religious interventions in practice. Therefore, the analysis is limited to the normative alignment between Islamic jurisprudence, regulatory frameworks, and conceptual models of behavior, without assessing actual levels of public compliance or differences across demographic, geographic, or institutional contexts.

Another limitation lies in the geographical and cultural specificity of the study. The findings are heavily dependent on the Indonesian regulatory landscape and may not directly reflect governance systems or religious interpretations found in other Muslim-majority societies. While core principles of environmental management are generally consistent across Islamic traditions, the operationalization of these principles varies across jurisdictions. Furthermore, this study is limited by the lack of comparative analysis.

Recommendations for Future Research

Future research should incorporate empirical approaches to test the conceptual model developed in this study. Survey-based studies, behavioral experiments, or ethnographic observations could help assess how religious values, legal knowledge, and community norms influence actual waste management practices. Such empirical research would enable researchers to determine whether the integration of Islamic jurisprudence and regulatory frameworks meaningfully changes behavior at the household, institutional, or city level.

Comparative studies are also needed to evaluate how different Muslim-majority contexts apply fiqh principles to environmental governance. Studying cases from Malaysia, Brunei, the Middle East, or North Africa would provide greater insight into how cultural, political, and institutional differences shape the implementation of Islamic environmental ethics. This would help identify which elements of the conceptual model are universally applicable and which are dependent on local conditions.

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